

PUBLIC HEALTH REPORTS

VOL. 41

AUGUST 6, 1926

NO. 32

FOOD POISONING FROM A STREPTOCOCCUS IN CHEESE

By B. A. LINDEN, W. R. TURNER, and CHARLES THOM, Microbiological Laboratory, Bureau of Chemistry, United States Department of Agriculture¹

Two outbreaks of food poisoning attributed to cheese have been reported within the year March, 1925–February, 1926. One outbreak involving nine persons at Biddeford, Me., was reported in March, 1925, as attributable to eating an imported Albanian cheese. The second outbreak of apparently 22 cases in Kansas City, Kans., was reported in February, 1926. The cheese suspected of causing the second outbreak was an American cheddar manufactured in Wisconsin.

The reports of the attending physicians in both cases were so similar and our bacteriological findings were such that they may be reported in one paper.

CASES

In the first outbreak, Dr. C. J. Xaphes, of Biddeford, Me., was called to attend nine persons suffering from what he diagnosed as food poisoning. The symptoms as given briefly by him are as follows: "Pains in stomach, severe vomiting, diarrhea, expression dull, and pulse fast." His investigation of the food eaten by those affected showed that cheese was a principal component of the single meal which all had taken together. None of the actual food consumed was available; but, since suspicion was placed on the cheese, samples from the same lot were obtained and forwarded to the Microbiological Laboratory of the Bureau of Chemistry.

The cases in the second outbreak reported in February, 1926, were very similar. Dr. H. L. Dwyer, of Kansas City, in reporting the 18 cases which he treated, gave the following descriptions: "The symptoms manifested were referable to the stomach and intestines, and were characterized by nausea and vomiting, paroxysms of abdominal pain, and diarrhea. The nature of the symptoms and the sudden attack in so many individuals suggested a common cause, probably related to some dietary factor. Investigation along this line revealed the fact that all the affected persons partook of some

¹ The authors acknowledge the cooperation of the Hygienic Laboratory of the United States Public Health Service, which furnished animals and space for an essential check series of feeding experiments.

cheese and this was the only food substance which was eaten by everyone of those affected." A sample of the cheese actually used was obtained and forwarded to the Microbiological Laboratory.

Physical examination of the samples of cheese submitted from the first outbreak showed it to be extremely hard, with an apparently high salt content, which was evident by the appearance of salt crystals on cut surfaces of the samples. The percentages of moisture and salt found by the Food Control Laboratory in these samples, together with the aerobic counts per gram made from plate cultures on dextrose agar are given in Table 1.

TABLE 1

Sample	Per cent of moisture	Per cent of salt	Bacterial counts	Sample	Per cent of moisture	Per cent of salt	Bacterial counts
A.....	25.09	5.50	2,000,000	D.....	24.90	7.20	500,000
B.....	25.16	5.84	600,000	E.....			200,000
C.....	24.39	7.37	300,000				

From suitable colonies transfers were made to dextrose agar slants and smears prepared for microscopic examination. From approximately 100 colonies thus examined cocci were the only group found, and of these but five proved to be members of the *Streptococcus lactis* type. Members of the paratyphoid-enteritidis group, so commonly reported to be the cause of such outbreaks,² were not found.

The presence of such large numbers of cocci in a type of cheese with a long ripening period and a high concentration of sodium chloride in the water present seemed significant. This organism was, therefore, isolated and used for feeding experiments. When fed to white rats, rabbits, guinea pigs, and sheep, no apparent harmful effects were noted. More or less disturbance was produced when milk cultures were fed to dogs. Cats when fed milk cultures gave positive results. For these experiments, flasks containing 100 c. c. of sterile milk were inoculated and incubated at 37° C. for three days. Upon feeding this culture to a cat, diarrhea was produced within four hours. This abnormal condition continued for four days. The original organism was recovered from the stools of this animal for three days following the first disturbance. Cultures of the organism recovered, when grown in milk and fed to a second cat, produced the same gastric disturbances in 8 to 10 hours. A third cat fed the original isolated cultures gave the same positive results.

On account of the seemingly high acid production in milk cultures, it was deemed advisable to observe animals fed "soured" milk.

² Numerous epidemiological and bacteriological discussions of such outbreaks are scattered through the literature of the past five years.

Flasks of milk "soured" with a culture of *Streptococcus lactis* were used. Three feedings of this material failed to produce any abnormalities in the experimental animals.

Experimental work was interrupted from June, 1925, until the occurrence of the second outbreak in February, 1926. The cultures used in the work already reported were found to be dead, but the organism was again isolated from the original cheese, which had remained in the refrigerator. Although the cheese was heavily incrustated with salt, the organisms remained viable and did not appear to have lost virulence by the storage.

The sample submitted from the second outbreak was taken directly from the cheese held responsible for the poisoning. Aerobic plates on dextrose agar made from this sample showed 27,000,000 bacteria per gram of cheese. Of these, approximately 20,000,000 were cocci which were morphologically and culturally identical with those isolated from the Albanian cheese. A number of examinations failed to reveal the presence of members of the paratyphoid-enteritidis group of organisms. Accordingly the organism from the Albanian cheese was reisolated, as already indicated, and the two strains were carried parallel in further experimental work.

Results of the experiments conducted the previous year had indicated that cats were more susceptible than any other type of animal tested. A number of cats were placed under observation for several days to determine the normal consistency of the stools when the animals were fed a normal diet of meat, bread, and milk. After the preliminary observation period, a single feeding of inoculated milk was introduced, followed by return to the regular diet. Previous experiments had shown that the introduction of such a feeding of fresh or sour milk had no disturbing effect upon the cats.

For these experiments flasks containing 150 c. c. of sterile skim milk were inoculated with the cheese organism. Incubation at 37° C. for 48 hours caused the milk to curdle, and after this time feedings were conducted. Table 2 shows the results of nine feeding experiments. Cultures A₁ indicate the strain isolated from the Albanian cheese, D₁ the Wisconsin cheese. Culture C₂S₂, fed to cat No. 7 was a culture recovered from the stool of cat No. 1 and grown in milk.

TABLE 2

Animal No.	Culture	Diarrhetic stools within—	Normal stools after—	Animal No.	Culture	Diarrhetic stools within—	Normal stools after—
			Days				Days
1.....	A ₁	3 stools within 16 hours.....	5	6.....	A ₁	24 hours.....	6
2.....	A ₁	Animal failed to eat culture.....		7.....	C ₂ S ₂	5 hours.....	4
3.....	A ₁	24 hours.....	6	8.....	D ₁	24 hours.....	5
4.....	D ₁	48 hours.....	6	9.....	D ₁	do.....	6
5.....	D ₁	do.....	6				

From Table 2 it is seen that this organism when grown in milk and fed to cats causes a gastro-intestinal disturbance. The feces from these animals were exceedingly watery and of a light color as contrasted with the normal hard, dark-colored excreta. It is interesting to note that the culture (C_2S_2) recovered from the feces of a previous feeding caused the gastro-intestinal disturbance in a much shorter time than any of the other cultures. Recovery from the effects of the feedings required about six days in the majority of cases.

While cultural studies were being made, it was observed that chopped-beef medium acted as an excellent substratum for the growth of the organism. To test beef as a basis for poisoning outbreaks of this kind, jars containing 100 grams of chopped meat and 3 ounces of broth were inoculated and incubated for 24 hours at 37°C . By the end of this incubation period luxuriant growth had been produced. Three cats were fed with such cultures, including both strains, but no positive gastro-intestinal disturbance occurred. The experiment was repeated with three more cats, but again there was no evidence of enteric disturbances.

Similar flasks were prepared and inoculated with retransfer after each three days of incubation until the sixth transfer. These cultures were fed to two cats, but no disturbance was produced. Organisms from these meat cultures, including strains A_1 and C_2S_2 , were then transferred back to milk and retransferred at three-day intervals six times and the sixth series of milk cultures were fed to three cats. Diarrhea developed in all three animals in approximately eight hours.

Thus far, therefore, no sickness has been produced in these experiments except when milk was used as a culture medium.

Cultures of the organisms isolated from the two types of cheese were studied and the following description is prepared from the results obtained. These studies were identical for the organisms from the two sources; therefore but one description is necessary.

DESCRIPTION OF THE ORGANISM

MORPHOLOGY

Form: The organism was spherical, regardless of the type of media used for its growth.

Size: The cells had a diameter of from 0.8 to 1.2 micron.

Arrangement: The organisms were generally arranged in pairs or short chains. In milk cultures, pairs were the usual type. In beef infusion medium cultures, short chains of 6 to 8 cells predominated.

Motility: Motility was never observed.

Staining reaction: The organism was found to be Gram positive, regardless of the age of the culture.

CULTURAL CHARACTERISTICS

Agar streak: On dextrose agar, growth was rapid, beaded, raised, smooth, glistening, grayish, white opaque. Growth on beef extract agar was somewhat less rapid than on dextrose agar.

Agar colonies: On dextrose agar, plates showed growth within 24 hours at 37° C. The colonies formed were small, round, grayish white, amorphous, undulate-edged, slightly raised on the surface of the medium, and small, grayish white, lens-shaped subsurface.

Gelatin stab: Growth was uniform throughout the length of the stab without any liquefaction.

Bouillon: A uniform turbidity with no sediment was produced.

Potato: Potato cultures showed no evidence of growth.

Dunham's solution: A flocculent growth was produced, with no formation of indol.

Nitrate broth: Uniform cloudiness was produced, with no reduction to nitrates.

Litmus milk: Reduction of the litmus was evident after 24 hours' incubation at 37° C. After 48 hours, evidence of acid production was shown by the production of a reddish ring at the surface. Soft coagulation was produced after three to four days.

BIOCHEMICAL FEATURES

Gas production: Gas production was not evident in bouillons containing various fermentable substances.

Acid production: Acid production in milk after a long incubation showed the production of 0.5 to 0.6 per cent acid, calculated as lactic. Bouillon containing dextrose, maltose, lactose, sucrose, salicin, mannite, rhamnose, and glycerol showed acid production, but with raffinose and inulin no acid was produced.

Oxygen relation: The organism was facultative.

Temperature relation: Minimum for growth, 16° C.; optimum, 37° C.; maximum, 42° C.

The occurrence of these organisms in cheese, together with their reaction in experimental animals fed milk cultures, makes significant their relation to the common pasteurization temperatures. Consequently, experiments were conducted using the temperatures of 138°, 142°, and 145° F. Tubes containing 9 c. c. of sterile skim milk were allowed to heat to the desired temperature in the constant temperature bath and were then inoculated with 1 c. c. of a bacterial suspension. At intervals of five minutes the tubes were removed, cooled in ice water, and 1 c. c. quantities plated. Total counts were made after 24 hours' incubation at 37° C. At 138° F. no apparent effect was produced. Table 3 shows the results of these experiments.

TABLE 3

Temperature.....	142° F.	145° F.	Initial count.....	3, 500, 000	1, 000, 000
Time exposed	Summary of surviving bacteria		Time exposed	Summary of surviving bacteria	
5 minutes.....	2, 570, 000	223, 850	20 minutes.....	400, 000	50
10 minutes.....	760, 000	7, 000	25 minutes.....	160, 000	0
15 minutes.....	530, 000	500	30 minutes.....	6, 800	0

From Table 3 it is seen that 142° F. has some effect upon the organisms. However, for complete sterilization, 145° for 30 minutes is considered necessary.

The organism involved has not been identified certainly as any well-described species. Morphologically it has much in common with the ordinary lactic types used in the preparation of "starters" for butter and cheese making, although the concentration of acid produced (0.5 to 0.6 per cent by titration, calculated as lactic) is considerably lower than that sought in the usual lactic "starters." The organism could be carried as a contamination of such starters without easy means of detecting its dangerous character. Its ability to grow readily in many substrata leaves many avenues open by which this species may reach human food.

These outbreaks and the confirmatory experiments described are reported here without attempting to generalize too broadly. Barber² reported similar experiments with cocci and similar results upon human subjects. The recent literature of food poisoning and food infections has failed to recognize organisms other than those of the paratyphoid-enteritidis group as involved in causing these acute enteric disturbances. Nevertheless, such outbreaks are exceedingly frequent and such studies as have been possible have very commonly yielded negative results. It may well be that the description of the organism found in these samples, together with the cultural methods described, may lead to the recognition of other outbreaks from this type of organism.

REPORT OF A SURVEY TO DETERMINE THE MALARIA PREVALENCE IN THE OKEFENOKEE SWAMP

By BRUCE MAYNE, Associate Entomologist, United States Public Health Service

The Okefenokee Swamp is situated in Charlton and Ware Counties, in southeast Georgia, and extends into northeast Florida, covering about 660 square miles. The general level of the swamp is from 114 to 120 feet above tidewater. At ordinary stages of water it discharges into the Gulf of Mexico near Cedar Keys through the Suwanee River

² Barber, M. A.: Milk Poisoning Due to a Type of *Staphylococcus albus* Occurring in the Udder of a Healthy Cow. Philippine Jour. Sci., 9: 515, 1914.

but in wet weather overflow water reaches the Atlantic through the St. Mary's River.

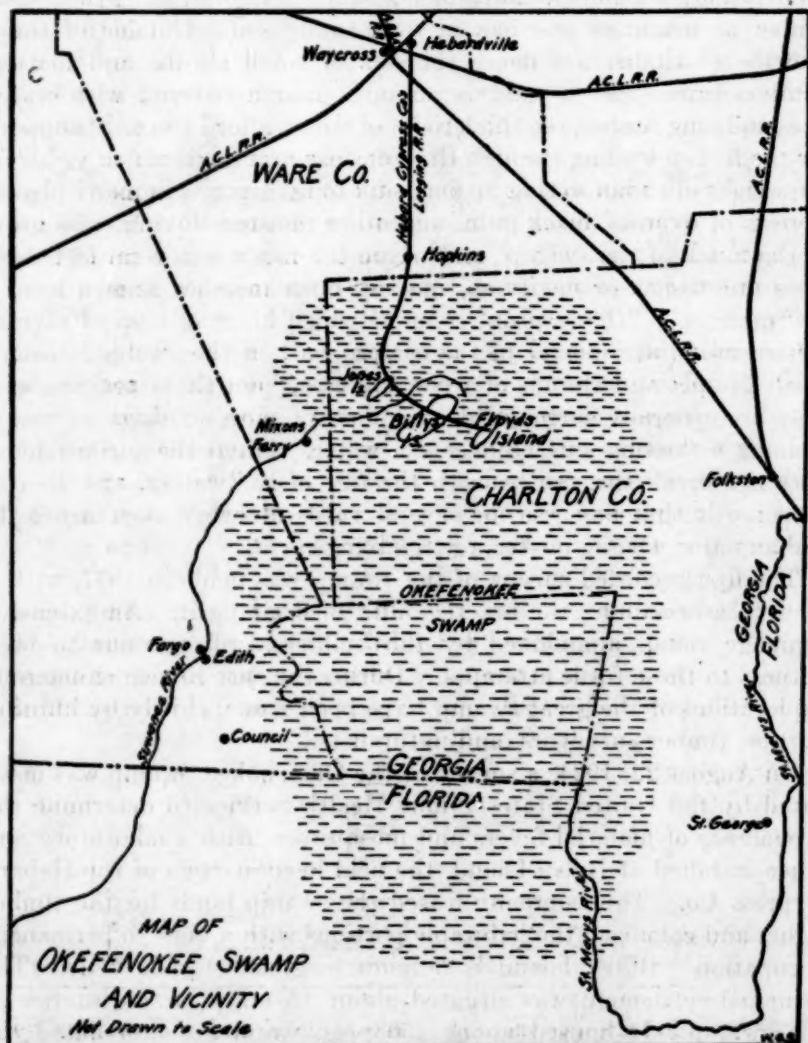
Where the sand rises a little above the water there are islands covered with open forests. The largest islands in the swamp, Floyds, Billys, Jones, and Black Jack are covered with pine, palmetto, and cypress on their higher portions. On the borders of these islands there is a low hummock land which sustains a vigorous growth of such timber as magnolia and oak in rich, sandy soil. Outside of these growths of timber are dense thickets of small shrubs and matted bamboo briars and beyond is an open marsh covered with water lilies and long bushes, the thick roots of which afford the only support for the feet in wading through the soft ooze and mud, which yields to the weight of a man so that he may sink to his armpits in many places. Forests of cypress, black gum, and other moisture-loving trees grow in the muck of the swamp; and where the muck is several feet deep trees are absent or nearly so, making open marshes known locally as "prairies." The prairies, some of which have an area of several square miles, are mostly in the eastern part of the swamp. Many small islands and clumps of trees, "houses," dot these prairies, and they are generally surrounded by a floor of moss (*Sphagnum* moss) forming a floating surface over the water. Often the surface moss does not break through beneath the feet of the walker, and he can then see it sink and rise for several yards at every step, hence its Indian name, Oke-fe-no-kee, or trembling earth.

The first recorded survey of the swamp was made in 1857, with a view to ascertaining the practicability of draining it. An extensive drainage canal, abandoned by the builders, still remains to bear witness to these futile attempts. During the past 40 years numerous explorations of the great swamp have been made, chiefly by hunting parties, timber surveyors, and naturalists.

On August 22, 1924, a survey of the Okefenokee Swamp was instituted by the United States Public Health Service to determine the prevalence of malarial fevers and mosquitoes, with a laboratory and office installed at Billys Island, the field headquarters of the Hebard Cypress Co. This company leased the swamp lands for the timber rights and colonized the habitable portions with a view to permanent occupation. Billys Island is 5 miles long and 1 mile wide. The principal settlement was situated about 15 miles in the interior of the swamp. It housed about 450 people and accommodated the following domestic animals: 105 cattle, 3 mules, 162 swine, and approximately 1,000 fowls. An impression of the permanence of the settlement may be gained by a list of buildings that were maintained in addition to the usual company railroad workshops and structures incidental thereto: Office, general store, confectionery store, drug store, negro schoolhouse and church, white schoolhouse and church,

motion-picture theater, four bathhouses, two boarding houses, and a hotel. This survey was continued the following year, in August, 1925, making a total of 70 days devoted to the complete investigation.

Factors considered in the survey.—The surrounding waters at Billys Lake and the edge of the swamp were surveyed for aquatic forms in



order to locate the source of *Anopheles* propagation. The usual inspection of houses and animal quarters and outhouses was undertaken, and observations were made of mosquitoes biting in the open. Mosquitoes collected inside dwellings were dissected when the residents gave a history of even remote or doubtful malaria. Blood

specimens were collected from similar sources, and in a few instances spleen palpations were made in addition. A malaria history index was made, and the economic conditions of the residents were studied intensively.

The prevalence of anophelines and their habits.—The following facts have been noted: The only anopheline present was *A. crucians*, which was found inside of dwellings as well as on porches and under houses. *A. crucians* was commonly attracted by artificial light, and found to attack usually in the presence of bright electric lights. This species was seen biting in daylight, in sunshine as well as shade, near lake or swamp water, beginning as early as 7.15 a. m. In one experiment *A. crucians* was found abundantly in a poorly screened shack, biting at night and escaping before daylight. It was conclusively demonstrated during both visits to the swamp that this species freely entered houses, only a small proportion remaining until daylight after a nocturnal invasion. A specific instance of this is related as follows:

While attending a social party at a private home on Billys Island I observed specimens of *A. crucians* attacking persons seated inside the house. I counted 18 persons who were being annoyed by the biting of mosquitoes, and during the course of 40 minutes I collected and identified 212 specimens of *Anopheles crucians*. On the following morning, at 6.30 a. m., an inspection of this residence showed only 14 specimens of *crucians* inside the dwelling and 142 specimens on the gallery resting on rafters and walls.

Anopheles crucians was found on Billys Island, Jones Island, and Floyds Island in great numbers. On Billys Island it far outnumbered all other species of mosquitoes. An idea of its prevalence and distribution is given in the following typical figures from the catch of two localities:

Where taken	Residence of Mr. A	Residence of Mr. B
Inside of house.....	92	12
Veranda and under house.....	139	1,502
Privy.....	36	6
Smokehouse and house.....	20	40
Cow stable.....	746	197

In the wooded area invasion of tree stumps and hollow logs by *A. crucians* is very common. Over 200 specimens, all *A. crucians*, were collected from one hollow log near Billys Lake. Here also in the course of 20 minutes 35 specimens of *A. crucians* were collected in the act of biting the investigator.

Relation of temperature to biting.—Here, as elsewhere, a definite relation was noted as to the effect of temperature on mosquito

biting habits. In this regard the relations of humidity as influenced by swamp environments were observed to have no marked effect. The following data are presented:

Observation No. 1, August 22, 1925.—8 p. m. outdoor temperature, 72.5° F. on veranda of house. Here for period of one hour no biting was experienced. A change was made to the room with windows closed, where the temperature registered 78° F. In the course of one hour eight specimens of *crucians* were collected in the act of biting a companion and myself.

Observation No. 2, August 15, 1925.—Every evening up to this time note was taken of the number of *crucians* attacking persons in and about houses on the island. The temperature had been registering a mean maximum of 82° F., and infestation with *crucians* was constant and noticeable. Beginning August 16 to 18 there was a temperature drop to 73° F. from 7 p. m. to 12.15 a. m., during which time there was an entire absence of biting from *A. crucians*. Five persons in various homes in the swamp reported the marked difference, and confirmed the impressions of the writer as to the correlation of decline in temperature and change in biting habits of the *crucians*. Beginning with the evening of August 18, normal warm temperature prevailed and the mosquito attacks were resumed as formerly.

Numerous isolated observations were made during the two summers' investigations tending to confirm the conclusion that, under conditions found present in the swamp, biting by *A. crucians* never occurred with temperatures under 72° F.

History of the reported absence of malaria in the Okefenokee Swamp.—This particular region was selected for investigation because of the repeated claims of visitors to the swamp of the perpetual freedom from malaria. Doctor Reavis, the physician of the Hebard Cypress Co., had practiced medicine continually in the Okefenokee Swamp and vicinity for 6 years, and was familiar with the case records of his predecessors for an additional 10 years. He asserted quite positively that malarial fevers in this region were unknown in acute and chronic forms.

Settlers born in the swamp or intimately acquainted with conditions there for periods of 25 to 40 years declare that chills and fever were never present to their knowledge. Many of these men served as guides and hunters for various scientists who in the past 20 years have visited the region for purposes of collecting specimens and for biological study.

Several leaders of camping parties furnished the information that no case of malarial fever resulted from exposure to bites of harassing swarms of anopheline mosquitoes during several years of occasional visits. Trappers and woodsmen in this region were not acquainted with any case of suspicious symptoms of malaria originating in the swamp. Mr. Hopkins, former field manager of the Hebard Cypress Co., reported having spent three years with 12 to 15 men in a survey party visiting all sections of the swamp without a single instance of complaint of malarial symptoms.

Doctor Armistead, the physician at the town of Hopkins, the first settlement north of the swamp, who is the company doctor for the Twin Tree Lumber Co., reported that the cases of malarial fever observed in that town were contracted in the towns of Council and Leesburg, Ga. He had never seen a case of chills and fever on Jones Island, the property in the swamp operated by the Twin Tree Lumber Co., among a working force of 320 to 375 men

Malaria history index.—On account of the reputed absence of the disease, it was deemed necessary to proceed circumspectly in the manner of obtaining individual histories from residents of the swamp. With this in view a history index was obtained with the following results:

Year	Number of persons	Report
1924.....	435	Negative.
1925.....	558	Do.

Blood specimens obtained.—As many blood specimens as possible (347) were collected in the course of the investigation. These were taken at the company physician's office, in the company commissary store, and at private homes. "Thick smears" were made, and whenever there was any complaint of fever or previous history of suspicious malarial symptoms a thin smear was obtained in addition to the thick-smear blood specimen.

Results of study of histories and blood examinations.—During the two seasons of the investigation no plasmodia were found in an intensive study of the 347 blood films examined. About 34 persons gave a history of having had malaria within the preceding four years, and in every instance they claimed to be free from symptoms at the time of this investigation. Examination of the blood of these persons did not reveal malaria parasites. None of these persons was taking treatment for malaria at the time of the investigation.

A few specific instances of histories of such people are cited:

One household of seven persons, who formerly resided at Owens Ferry on the Saltillo River, in Georgia, asserted that they had been malaria sufferers for years; that they had never missed two months without clinical symptoms. They had lived in the Okefenokee Swamp 18 months and had never experienced chills or other evidence of their former complaint. I examined all seven of these persons, and all appeared negative for malaria.

In 1919, 6 years previous to this investigation, a party of eight people had entered the employ of the Hebard Cypress Co., after a six weeks' stay at Council, Ga., where they suffered severely with malarial fevers. None of these people complained of a recurrence of symptoms up to the time I made blood examinations and found them negative microscopically.

One year prior to this investigation two families of nine persons had entered Billys Island after spending 10 months with frequent spells of chills and fever in a malarious section of northwest Florida. Not one of these people showed enlarged spleens or plasmodia on examination during the present investigation.

Observations on mosquito incidence.—It seemed rather anomalous that in the presence of innumerable adult *Anopheles* so few larvae were observed. Numerous excursions were made in small boats, covering approximately 30 miles of navigable water throughout the swamp territory, when only a few aquatic forms of *Anopheles* were encountered. The larvae collected were few in number, never more than three-fourths grown. They were found in open swamp less than 1 mile south of Billys Island; on the shore line in protected coves of Billys Island; along the grass-lined banks of the headwaters of the Suwanee River; and in flotage in Big Water Lake 14 miles east of Billys Island.

Top-feeding minnows, *Gambusia* and *Fundulus*, were present in abundance. The wooded swamp sections and portions of Billys Lake and "The Canal" were matted with *Sphagnum* moss. The open waters, "the prairies," were canopied with a species of water lily, or "bonnets." In these environments mosquito larvae or pupae were never found.

Adult mosquitoes were collected from various natural habitats and in the region of settlements during these studies as follows:

Year	Total	Female	Male	Species
1924.....	4, 282	4, 249	33	<i>A. crucians</i> .
1925.....	6, 528	6, 476	52	Do.

A total collection of 10,810 specimens were examined with a hand lens, and in every instance no other species but *A. crucians* was identified. No specimen of *quadrimaculatus* was encountered in the swamp area. These mosquitoes, exclusive of the 85 males, were found distributed in the following resting places:

Location	Number of specimens	Percentage
Inside of dwellings.....	1, 180	11
Porch and under dwellings.....	1, 609	15
Privy.....	965	9
Outhouses.....	643	6
Mule and cow stable.....	5, 577	52
Fowl house.....	751	7

House infestation by *A. crucians* in occupied dwellings was common. As many as 520 specimens were collected from the interior and gallery of one four-room house.

There seems to be a correlation between the small number of males found and the scarcity of larvae. There were only 85 males in a total of 10,810 specimens collected, giving a proportion of 1 male to 127 females *A. crucians*. This suggests, in addition to the absence of larvae or lack of propagation, the probability of the production of definite broods with little or no overlapping in generations, a condition not found commonly elsewhere.

Inasmuch as it appeared to be an established fact that *Anopheles quadrimaculatus* was never found in the swamp, the query arose as to the possibility of this species becoming established when introduced from the outside. Only one experiment was attempted bearing on this subject. A specimen of *quadrimaculatus* captured at the town of Hopkins was brought to the swamp laboratory. It was induced to bite the observer and placed in a suitable jar for development. Two days later the specimen was killed after having laid about 20 eggs in water obtained from the swamp, and 18 larvae were produced. These were allowed to develop for six days and then destroyed.

SUMMARY

No malarial fevers were found in the area known as the Okefenokee Swamp on the border between Florida and Georgia.

In the limited time of the investigation a history index was made of 993 persons. Blood examinations were made of 347, in whom no plasmodia were found. *Anopheles crucians* was the only species of mosquito found in a collection of 10,810 specimens. Of these, 307 specimens were dissected with negative results.

SURVEY OF THE SETTLED AREA SURROUNDING THE SWAMP

Several settlements and towns bordering on the swamp were visited and inquiries were made relative to malaria incidence. Investigations were made of the following:

Hopkins, situated 15 miles north of Billys Island, with a population under 1,000. This town was the mill center of the Twin Tree Lumber Co., and the railroad junction for the Hebard Cypress Co. Here in 1924 malaria was found sporadically, in every instance introduced. Several cases were traced to Leesburg, Ga., and Council, Ga. In 1925 there were no cases observed. Collections of *Anopheles* were made here in both years, when great numbers of mosquitoes were found. *Anopheles crucians* predominated at all times. A few specimens of *A. quadrimaculatus*, in the ratio of 1 to 160 *crucians*, were collected in both years of the investigation.

Suwanee Lake Ranch, 2 miles west of Hopkins, housing 16 persons. Numerous *Anopheles crucians* were observed and collected, and malaria histories taken. No evidence of malaria was noted.

Mixon's Ferry, on the headwaters of the Suwanee River, 10 miles west of Billys Island. Here 18 people lived in a secluded community engaged in agriculture and fishing. Two days were spent here and information was obtained ruling out malaria either recent or remote. Anopheline mosquitoes were found to be extremely numerous. I collected 312 specimens of *A. crucians*.

On the eastern border of the swamp the region was surveyed as far south as Folkston and St. George, about 35 miles from Waycross. This locality is 6 miles from the border of the swamp, and has a population of about 2,800 people. The records of the local physician practicing here for five years indicated the entire absence of malarial fevers on the southern edge of the swamp. This was also confirmed in a malaria history survey. The only anopheline mosquito observed here was *crucians*, in moderate numbers. About 600 specimens of *crucians* were collected from this locality.

Edith, a settlement of about 100 people, 30 miles southwest of Billys Island and on the east bank of the Suwanee River, about 20 miles from the swamp. Malaria was not present at the time of my visit, and records of 25 years signified the absence of malarial fevers. In a collection of *Anopheles* from this place two *quadrimaculatus* and 258 *crucians* were observed.

Fargo, situated directly across the river from Edith, with a population of 400. No histories of malaria were obtained here. There were collected 357 *crucians* and 3 *quadrimaculatus*.

Council, Ga., a lumber-mill town of 800 people, situated 38 miles from Billys Island. Here malarial fevers were reported as very serious. The company physician had treated 78 cases of bedridden malaria patients within eight months. At the time of my visit there were 18 cases under treatment. A collection of 112 specimens yielded 16 *A. quadrimaculatus*.

CHOLERA IN BANGKOK AND THE WORK OF THE SIAMESE RED CROSS

According to the latest reports, the cholera epidemic continues in Bangkok, Siam. From May 2 to 22, 1926, there were reported 944 cases of cholera with 508 deaths in Bangkok, 362 cases with 192 deaths being reported for the week ended May 22.

Information has been received from official sources that, in view of the continuation of the epidemic, attacks have been made on the Red Cross Society of Siam by two Siamese newspapers, which have stated that the society has not given sufficient aid in combating the outbreak and is not cooperating with the public health department or does very little in comparison with the activities of that department.

In a recent communication the American minister at Bangkok gives the information that, in view of such charges, the Siam Red Cross Society has issued a statement signed by H. R. H. Prince Nagor Svarga, vice president of the society, who states that the articles appearing in the two newspapers were marked by ignorance of the facts and were not meant to convey friendly advice; that the council of the Red Cross Society does not care to dispute with any newspaper or newspaper writer, but, as such articles might mislead the people and lessen their trust in the Red Cross, it has been thought well to make the following reply:

1. As to the aims of the Red Cross, the society was not established to do work which would in any way compete with the work of Government officials. The Red Cross is designed to be a support to the Government. Some of its work it does hand in hand in agreement with the Government; some of its work it does of its own initiative; but there is no competition.

2. Fighting an epidemic of disease is quite special work, and if that work is undertaken in different ways and not under the direction of one head, good results are impossible; in fact, serious harm might be caused. For that reason, in relief work in time of any public calamity, or in fighting an epidemic of disease, when Government officials have entered on the work, Red Cross societies all over the world must place themselves under the directions of the Government officials and act under their orders. In this particular case the department of public health represents the Government for the purpose of this work. The Red Cross Society, therefore, does its work, in this connection, along the lines prescribed by and under the direction of the department of public health. No independent action is taken.

3. From the beginning of this cholera epidemic many months ago, the Red Cross Society has been in close touch with and has acted according to the requirements of the department of public health. For example, the society began making anticholera vaccine without bringing up any question of cost. Then, when the epidemic became worse at the beginning of the present year, the Red Cross Society had two meetings with the officials of the public health department. The duties of the bodies were then divided most amicably so as to cover the whole field.

4. The department of public health at the same time expressed a wish that the supply of vaccine should be increased to 25,000 cubic centimeters a day. That was ten times the former quantity, but the Red Cross supplied the new requirements, though it meant working by night as well as by day. This vaccine has to be prepared with the utmost care; any mistake might be dangerous to the people. Throughout, the department of public health has found the supply sufficient and correctly prepared.

5. For the vaccine supplied to the department of public health since the beginning of the year and to be supplied until the epidemic subsides, the Red Cross has agreed to charge the department nothing. It is part of the contribution of the Red Cross toward fighting the epidemic, and it is costing something like 100,000 ticals a month.

6. The Red Cross makes provision for inoculating all persons coming to its various institutions and sends doctors to people's houses for the same purpose. This is done without any charge being made.

7. When the amount of vaccine produced had suddenly to be increased tenfold, the supply available for doctors and dispensaries was stopped for a few days; but that supply is again available as before. It was felt that it was more important to maintain the supply by which everybody could be inoculated free of charge than to sell to private practitioners.

TYPHOID OUTBREAK AND ANTITYPHOID CAMPAIGN IN COLON, PROVINCE OF MATANZAS, CUBA¹

Early in December, 1925, there occurred a case of sickness in Colon which was diagnosed as malaria by the local health officer. Under this supposition the patient was permitted to be moved to a different part of the town. Like many other homes in Colon, this new home was provided with a pit latrine which was connected with an unused well. The city obtains its water supply from a great number of wells, all fed by the same underground stream as are the unused wells employed for the deposit of excreta.

Within 10 or 12 days of the patient's arrival, 20 new cases of typhoid fever occurred in the immediate vicinity of his house, all verified first clinically and later bacteriologically as positive for typhoid fever—evidently a clear-cut case of water-borne infection.

Unfortunately, this outbreak was not reported to the Federal health authorities. It appears that the infection was next carried to a private waterworks system, about 20 yards away, and by the 16th of January, 1926, a large number of persons using this system (the wealthier class) had contracted the disease. Colon had from 150 to 200 cases of typhoid fever, and it was then that official reports began to be made of a few cases.

Suspecting the gravity of the situation, Doctor Rensoli, secretary of the department of health, sent experts to the scene and on receiving their telegraphic reports went to Colon himself, where he ordered the following measures to be taken: Chlorination of all water supplies; establishment of inoculation stations; painting and cleaning of meat shops and placing grates in their refrigerators; control of the

¹ Reported to the Academia de Ciencias Médicas, Físicas y Naturales de la Habana, by Dr. José J. Chalons.

supply of milk, vegetables, etc.; campaign against flies; and isolation of cases to avoid infection by direct contact.

The campaign against the epidemic was then actively undertaken by Doctor Chalons. His first step on arrival in Colon was to hospitalize 60 or 70 cases existing among the destitute class of the city. The ice being found to be contaminated, the ice factory was ordered closed. Similar measures were to have been taken with the soda-water plant, but its proprietor closed his place of business voluntarily.

The streets, theaters, and parks of Colon were deserted and commerce was at a standstill when the major operations of the campaign were undertaken.

Chlorination of water.—All water was treated with hypochlorite, and by the end of the incubation period an immediate effect was seen on the new-case incidence. It is believed that this one measure reduced the force of the epidemic by at least 70 per cent.

Contamination of water reduced.—Pit latrines were immediately disconnected from the wells; the former were cleaned out and the latter thoroughly disinfected, the owners being warned that any further installation of a similar nature would render them liable to a fine of \$500 in addition to criminal action.

Inoculation stations.—Four stations were established at convenient points, it being necessary to increase this number to five when the isolation of the town was completed.

Sanitary cordon.—With the aid of troops and police, a complete sanitary cordon was instituted, which prevented egress from the town to anyone not provided with an inoculation certificate and with a health certificate issued on the day of departure. After the establishment of the cordon, no new cases were reported outside the town.

During the first few days on which the inoculation stations were in operation, only the persons conscious of the existing peril had recourse to them, at the rate of about 300 or 400 daily. When this attendance decreased, inoculation was made compulsory, this measure bringing in about 1,700 persons the first day, about 1,300 the second and between 700 and 900 during the succeeding days, the number later falling off again. Knowing from the census that many of the inhabitants still remained unprotected, posters and circulars were distributed throughout the town by soldiers and police, announcing that all persons found uninoculated at the end of four days would be arrested and fined. This action induced from 800 to 1,000 people daily to come to the stations during the four days and inoculators were sent to the suburbs, in each of which about 300 people were inoculated.

At the end of the four-day period 200 of the inhabitants were apprehended and inoculated, this step bringing further applicants for protection, but in very reduced numbers, no doubt due to the fact that practically the whole population had been immunized. The 200 accused were given suspended sentences and the following day the sanitary cordon was discontinued.

In all, approximately 12,000 persons were immunized, and the epidemic was controlled. About 350 cases of the disease occurred.

PUBLIC HEALTH ENGINEERING ABSTRACTS

North Carolina Oysters. Anon. *Health Bulletin*, North Carolina State Board of Health, vol. 41, No. 2, February, 1926, pp. 3-8. (Abstract by R. E. Tarbett.)

The article covers the subject of North Carolina oysters and the method of carrying on sanitary control as it has been exercised during the past year.

The State board of health, in conjunction with the fisheries commission, has equipped a laboratory boat with which studies have been made of the shellfish-growing areas of North Carolina. In order to pay for this inspection, the oyster tax was increased $1\frac{1}{4}$ cents per bushel.

A considerable percentage of the oysters taken from North Carolina waters are exported in the shell and taken by "buy" boats directly from the gatherers. The tax is collected from these "buy" boats, and the inspector, at time of collection of the tax, issues a certificate of origin of the oysters to the captain of the boat. All these boats, in leaving North Carolina waters, must pass through a canal, and they are again boarded by an inspector to see that the captain has the certificate of origin as well as his tax receipt.

The amount of oysters dredged from North Carolina waters in 1926, was over 301,000 bushels. Practically this entire crop was disposed of under foreign label.

Work was also carried on relative to the sanitation of shucking plants.

The Influence of Hydrogen Ion Concentration on the Dose of Alum and the Mechanism of the Action of Alum in the Clarification of Natural Waters. N. L. Banerji (*Indian Jour. Med. Research*, 11 (1924), No. 3, pp. 695-718). From *Experiment Station Record*, U. S. Department of Agriculture, vol. 54, No. 4, March, 1926, p. 383. (Abstract by Arthur P. Miller.)

"Studies are conducted which showed that, with other factors, such as suspended matter, size of particles, and concentration of electrolytes remaining constant, the optimum dose of alum for water

clarification increases and decreases with the pH, and that total hardness is an important factor in regulating the dose.

"The mechanism of the action of aluminum sulphate is divided into two parts, due to unhydrolyzed aluminum sulphate and hydrolyzed aluminum sulphate. The positive aluminum ion from the unhydrolyzed portion is the most potent factor in clarification. The dose of alum can be decreased by the preliminary addition of sulphuric acid. This is considered to be very important from the standpoint of economy in water clarification in the case of slow sand filters when the suspended matter in river water is very high."

Some Further Observations on the Species Method of Differentiating Fecal Organisms in Surface Waters in the Tropics. A. D. Stewart and V. G. Raju (*Indian Jour. Med. Research*, 11 (1924), No. 4, pp. 1157-1162). From *Experiment Station Record*, U. S. Department of Agriculture, vol. 54, No. 4, March, 1926, p. 383. (Abstract by Arthur P. Miller.)

"Studies are reported which showed that *B. coli communis* is a very common organism in human feces, forming 29 per cent of the fecal organisms present and 26 per cent of those in septic tank latrine effluents. It is distinctly rarer in cow manure, and forms only 12 per cent of the fecal bacilli. *B. coli communis* is much rarer in waters which have received some natural purification, but is present in all waters subject to typical fecal pollution.

"The numbers of *B. coli communis* isolated from stored water were in marked contrast to those obtained from human feces, in spite of the fact that several of the samples examined had only a short period of storage. *B. coli communis* formed only 8 per cent as against 29 per cent in human feces, 26 per cent in septic tank latrine effluents, and 20 per cent in typically polluted river water. *B. neapolitanus* formed 37 per cent as against 32 per cent in crude human feces and 28 per cent in latrine effluents. This is taken to indicate that this organism is not adversely affected by storage, and, consequently, the number found in stored waters is equal to or greater than that found in freshly polluted waters or crude human feces.

"*B. coli communis* was not found at all in any of the waters subjected to prolonged storage, in spite of the fact that it was a predominating organism at the start. *B. coscoroba* formed only 3 per cent of the organisms isolated from human feces, whereas in the case of cow manure it formed 20 per cent.

"The results of the examination of septic tank latrine effluents showed a close parallelism to those of human feces in important respects. These results are taken to indicate that the numerical proportion of the main fecal organisms is not materially altered in the course of the passage of the effluents through a septic tank. The storage and natural purification of polluted waters, on the other hand, caused certain important changes to take place in the fecal

flora and tended to alter the relative proportion of the different varieties originally present."

Analytical Study of the Waters of Antietam Creek. T. C. Schaetzle, sr., Asst. San. Engr., *Engineering Bulletin*, Maryland State Department of Health, vol. 1, No. 2, September, 1925, pp. 105-141. (Abstract by T. C. Schaetzle.)

This article is concerned with a study of the waters of Antietam Creek, between Bridgeport and Funkstown, Md., for the period from September 11, 1923, to August 27, 1924. The investigation was made to determine the degree of pollution of this stream, with special reference to the relation of the biological growths in the stream to the chemical changes taking place therein.

At the time this investigation was begun the city of Hagerstown, with a population of approximately 30,000, was discharging its untreated sewage into Marsh Run, a tributary of Antietam Creek, located between Bridgeport and Funkstown. During the period of investigation a Dorreo screen, a part of the sewage treatment plant, was placed in service. The screened sewage discharged into Antietam Creek below Marsh Run.

A chemical, bacteriological, and microscopical study of the water from seven stations was made under various weather conditions. The analytical determinations include turbidity, color, suspended solids, total nitrogen, free and albuminoid ammonias, nitrites, nitrates, free carbon dioxide, dissolved oxygen, pH values, total and colon bacteria, and microscopic organisms. In the latter class, diatomaceæ predominated at all stations.

In addition to the tables and charts presented, the following conclusions were drawn: (1) The admission of sewage, whether treated or not, at two distinct points complicates the study of the self-purification of the stream; (2) the stream has not returned fully to its normal condition 2 miles below the sewage works discharge; (3) the discharge of screened sewage instead of raw sewage did not change materially the physical appearance of the stream a few hundred feet below the point of sewage discharge; (4) the entrance of organic matter into the stream increases the plant and animal life; (5) conditions on the bottom of the stream, with reference to the microscopic organisms, are of the same general nature as those existing in water; (6) the relation between the numbers of bacteria, algae, protozoa, and rotifera present in the waters of Antietam Creek and the organic pollution of the stream is established, but it is not conclusive enough to be of obvious diagnostic value; (7) the bacterial counts and some of the chemical constituents show clearly the pollution and dilution effects of Antietam Creek, with the subsequent self-purification of the stream; (8) the same general variations in the characteristics of the creek, due to seasonal changes and rainfall, occur above as well as below the points of sewage pollution.

COURT DECISIONS RELATING TO PUBLIC HEALTH

Increase in sum allowed by parish police jury for health work compelled.—(Louisiana Supreme Court; *State ex rel. Parish Board of Health of Calcasieu Parish v. Police Jury of Calcasieu Parish*, 108 So. 104; decided March 29, 1926.) The board of health of Calcasieu Parish brought a mandamus proceeding to compel the police jury of the parish to budget and appropriate the sum of \$5,251 for the operation and support of the board of health during the year 1926. Said sum was the estimate of expenses adopted by the board of health, but the police jury had placed in the budget the sum of \$1,000. The police jury contended that it was the final arbiter in such matters in case of disagreement, but the supreme court held that under Act 79 of 1921 the board of health could by mandamus compel "proper action" by the police jury in the matter of budgeting, appropriating, or paying for "all necessary expenses, costs, and charges of local sanitation." The supreme court increased the amount of \$1,000 allowed in the budget by the police jury to \$3,600.

Payment of fees of local registrar of vital statistics.—(Missouri Supreme Court; *State ex rel. Mitchell v. Rose et al.*, County Judges, 281 S. W. 396; decided March 15, 1926.) In a proceeding to compel the county court to pay to a local registrar of vital statistics the amount certified to the county court by the State registrar of vital statistics as due said local registrar, the supreme court held that, although the legislature had the power to provide for the payment of the fees to which a local registrar might be entitled out of the county treasury, it could not take away from the county court the right to call in question both the facts and the law on which the payment of such fees was demanded.

Payment of salary of purchasing agent for State detention home compelled.—(Colorado Supreme Court; *Davis, State Auditor, v. Morley*, 244 P. 599; decided March 8, 1926.) The purchasing agent for the State detention home, appointed by the State board of health pursuant to statutory authority, brought action for mandamus to compel the State auditor to issue warrants for his salary. The supreme court affirmed the judgment of the lower court awarding a writ of mandamus and held that the motive or intent of the State board of health in appointing the purchasing agent was irrelevant.

Additional tax for sanitary work held unlawful.—(California First District Court of Appeal; *Spreckels v. City and County of San Francisco*, 244 P. 919; decided January 20, 1926.) One of the points decided in this case was that a tax, levied in the fiscal year 1910-11 by the city and county of San Francisco for the purpose of providing for the continuance of sanitary measures against bubonic plague, was for wholly preventive measures where cases of plague had not existed

in the municipality after 1907, and the situation was not one of "great necessity or emergency" within the meaning of the charter at that time warranting a temporary suspension of the limitation on the rate of taxation and the levy of an additional tax.

Enjoining of maternity hospital refused.—(Texas Court of Civil Appeals; *Perry et al. v. Ripley et al.*, 282 S. W. 329; decided February 13, 1926.) Where a maternity hospital was conducted in conformity to law and there had been no abuse of discretion on the part of the local health officer in approving the application for license or on the part of the State board of health in granting the license, an injunction to restrain the operation of the hospital on the ground that the same might become a nuisance was refused by the court of civil appeals.

Abattoir held to be a necessary municipal expense.—(North Carolina Supreme Court; *Moore v. City of Greensboro*, 132 S. E. 565; decided April 14, 1926.) The city council of Greensboro passed an ordinance providing for the sale of bonds for the purpose of buying a site and erecting thereon and equipping an abattoir; also the levy and collection of a tax annually for the payment of the interest and principal was provided for. The ordinance was not submitted to the voters of the city. In a suit to enjoin the city from issuing the bonds on the ground that an abattoir was not a necessary municipal expense, the supreme court held that it was a necessary expense within the meaning of section 7 of article 7 of the State constitution, and, therefore, the ordinance did not have to be submitted to the voters.

Estoppel to complain of use of public incinerator.—(Kentucky Court of Appeals; *Karcher v. City of Louisville*, 281 S. W. 1010; decided March 26, 1926.) Where the plaintiff had negotiated the sale of an incinerator plant owned by his wife to the defendant city, knowing that the incinerator was to be employed by the city in the burning and destruction of garbage and dead animals, the court of appeals held that the plaintiff was estopped to complain of the city's use of the incinerator for the purpose for which it was intended.

DEATHS DURING WEEK ENDED JULY 24, 1926

Summary of information received by telegraph from industrial insurance companies for week ended July 24, 1926, and corresponding week of 1925. (From the *Weekly Health Index*, July 28, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended July 24, 1926	Corresponding week, 1925
Policies in force.....	64, 999, 105	60, 602, 704
Number of death claims.....	11, 099	10, 133
Death claims per 1,000 policies in force, annual rate.....	8. 9	8. 7

Deaths from all causes in certain large cities of the United States during the week ended July 24, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, July 28, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended July 24, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended July 24, 1926 ¹
	Total deaths	Death rate ¹		Week ended July 24, 1926	Corresponding week, 1925	
Total (66 cities).....	6,494	11.7	10.2	766	776	80
Akron.....	40			4	3	43
Albany.....	41	18.0	13.3	1	5	21
Atlanta.....	84			21	5	
White.....	35			9		
Colored.....	49	(²)		12		
Baltimore.....	206	13.3	10.7	26	38	76
White.....	158			16		57
Colored.....	48	(²)		10		162
Birmingham.....	66	16.3	9.9	5	8	
White.....	36			3		
Colored.....	30	(²)		2		
Boston.....	199	13.2	12.2	26	27	73
Bridgeport.....	30			5	1	85
Buffalo.....	129	12.4	11.7	18	21	75
Cambridge.....	30	12.8	7.4	2	2	33
Camden.....	16	6.4	10.1	2	4	34
Canton.....	22	10.4	8.3	2	5	44
Chicago.....	612	10.5	9.6	69	74	61
Cincinnati.....	133	16.9	12.2	20	16	124
Cleveland.....	183	9.9	7.2	21	15	54
Columbus.....	83	15.2	11.0	8	10	73
Dallas.....	44	11.5	15.4	8	13	
White.....	36			6		
Colored.....	8	(²)		2		
Dayton.....	51	15.0	11.2	5	6	79
Denver.....	62	11.3	12.8	7	11	
Des Moines.....	35	12.5	6.6	1	1	17
Detroit.....	281	11.4	9.5	57	39	92
Duluth.....	27	12.5	8.0	1	2	23
El Paso.....	37	17.7	17.4	6	11	
Erie.....	29			4	1	76
Fall River.....	20	8.0	12.9	5	2	73
Flint.....	29	11.0	5.6	3	4	50
Fort Worth.....	19	6.2	13.3	0	6	
White.....	17			0		
Colored.....	2	(²)		0		
Grand Rapids.....	28	9.4	4.4	4	0	58
Houston.....	31			0	5	
White.....	22			0		
Colored.....	9	(²)		0		
Indianapolis.....	83	11.8	13.2	11	17	81
White.....	68			11		93
Colored.....	15			0		0
Jersey City.....	65	10.7	9.6	9	0	64
Kansas City, Kans.....	28	12.5	10.8	2	3	35
White.....	22			1		21
Colored.....	6	(²)		1		131
Kansas City, Mo.....	86	12.0	10.6	6	9	
Los Angeles.....	216			15	27	42
Louisville.....	100	16.8	11.2	16	10	138
White.....	75			12		120
Colored.....	25	(²)		4		251
Lowell.....	21			0	2	0
Lynn.....	25	12.5	6.6	3	1	75
Memphis.....	77	22.7	17.3	8	5	
White.....	33			2		
Colored.....	44	(²)		6		
Milwaukee.....	104	10.5	8.2	18	10	83
Minneapolis.....	78	9.4	7.7	9	2	50
Nashville.....	51	19.4	17.2	10	2	
White.....	33			7		
Colored.....	18	(²)		3		

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

³ Data for 64 cities.

⁴ Deaths for week ended Friday, July 23, 1926.

⁵ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Norfolk, 38; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended July 24, 1923, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, July 28, 1926, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended July 24, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended July 24, 1926
	Total deaths	Death rate		Week ended July 24, 1926	Corresponding week, 1925	
New Bedford.....	20			5	2	87
New Haven.....	33	9.5	10.2	2	6	27
New Orleans.....	115	14.3	17.5	22	21	
White.....	72			13		
Colored.....	43	(¹)		9		
New York.....	1,231	10.8	9.2	120	135	49
Bronx borough.....	163	9.4	8.5	8	10	27
Brooklyn borough.....	435	10.1	7.1	54	41	55
Manhattan borough.....	460	12.8	12.5	43	69	47
Queens borough.....	137	9.4	6.8	12	14	54
Richmond borough.....	36	13.1	14.0	3	1	53
Newark, N. J.....	90	10.2	9.3	16	12	77
Norfolk.....	37	11.1	8.9	4	8	74
White.....	14			2		59
Colored.....	23	(¹)		2		99
Oakland.....	46	9.2	8.6	3	4	35
Oklahoma City.....	30			3	4	
Omaha.....	50	12.1	13.3	2	1	63
Paterson.....	25	9.1	8.8	2	1	35
Philadelphia.....	395	10.3	9.0	35	37	59
Pittsburgh.....	156	12.8	10.4	24	24	50
Portland, Oreg.....	39			0	3	0
Providence.....	59	11.2	9.1	6	3	50
Richmond.....	63	17.4	14.0	11	6	138
White.....	32			6		118
Colored.....	31	(¹)		5		175
Rochester.....	62	10.1	11.7	1	14	8
St. Louis.....	216	13.6	13.1	28	30	
St. Paul.....	45	9.5	11.7	3	7	27
Salt Lake City ²	29	11.4	9.2	4	1	55
San Antonio.....	60	15.3	16.6	12	17	
San Diego.....	38	18.0	16.2	5	4	105
San Francisco.....	131	12.0	10.7	7	6	42
Schenectady.....	13	7.3	6.7	0	2	0
Seattle.....	60			3	10	28
Somerville.....	19	9.9	10.5	5	3	130
Spokane.....	24	11.5	8.1	4	1	94
Springfield, Mass.....	33	11.9	8.8	3	5	43
Syracuse.....	49	13.9	8.0	4	2	51
Tacoma.....	19	9.3	14.0	1	2	23
Toledo.....	70	12.4	11.2	7	7	68
Trenton.....	32	12.5	11.5	6	4	100
Utica.....	41	20.8	13.3	8	3	176
Washington, D. C.....	147	14.5	12.3	12	17	68
White.....	82			7		58
Colored.....	65	(¹)		5		91
Waterbury.....	19			5	4	107
Wilmington, Del.....	17	7.1	9.4	1	1	23
Worcester.....	44	11.9	10.1	6	2	69
Yonkers.....	18	8.1	6.0	0	2	0
Youngstown.....	37	11.7	7.2	6	3	76

¹ Deaths for week ended Friday, July 23, 1926.

² In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 20; Norfolk, 38; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

Reports for Week Ended July 31, 1926

ALABAMA		CALIFORNIA—continued	
	Cases		Cases
Cerebrospinal meningitis.....	1	Lethargic encephalitis—Glendale.....	1
Chicken pox.....	2	Measles.....	151
Diphtheria.....	9	Mumps.....	46
Malaria.....	76	Poliomyelitis:	
Measles.....	34	Alameda County.....	1
Mumps.....	29	Fresno.....	1
Pellagra.....	16	Glendora.....	1
Pneumonia.....	16	Los Angeles.....	1
Scarlet fever.....	6	Rabies (human)—Huntington Park.....	1
Smallpox.....	11	Scarlet fever.....	58
Tuberculosis.....	77	Smallpox.....	15
Typhoid fever.....	109	Tuberculosis.....	199
Whooping cough.....	25	Typhoid fever.....	19
		Whooping cough.....	75
ARIZONA		CONNECTICUT	
Measles.....	3	Cerebrospinal meningitis.....	1
Mumps.....	1	Chicken pox.....	9
Scarlet fever.....	1	Diphtheria.....	9
Tuberculosis.....	1	German measles.....	4
		Influenza.....	1
ARKANSAS		Measles.....	25
		Mumps.....	3
Chicken pox.....	6	Paratyphoid fever.....	1
Diphtheria.....	1	Pneumonia (broncho).....	16
Influenza.....	21	Pneumonia (lobar).....	9
Malaria.....	107	Poliomyelitis.....	2
Measles.....	12	Scarlet fever.....	16
Mumps.....	9	Septic sore throat.....	2
Paratyphoid fever.....	7	Tetanus.....	1
Pellagra.....	24	Tuberculosis (all forms).....	28
Scarlet fever.....	6	Typhoid fever.....	4
Trachoma.....	2	Whooping cough.....	32
Tuberculosis.....	9		
Typhoid fever.....	69		
Whooping cough.....	20		
CALIFORNIA		DELAWARE	
Chicken pox.....	45	Malaria.....	1
Diphtheria.....	90	Scarlet fever.....	1
Influenza.....	1	Tuberculosis.....	3
		Whooping cough.....	5

FLORIDA	Cases
Cerebrospinal meningitis.....	3
Dengue.....	1
Diphtheria.....	19
Influenza.....	110
Lethargic encephalitis.....	1
Malaria.....	17
Measles.....	11
Mumps.....	8
Pneumonia.....	110
Poliomyelitis.....	3
Scarlet fever.....	3
Smallpox.....	16
Tetanus.....	2
Tuberculosis.....	112
Typhoid fever.....	21
Whooping cough.....	18

GEORGIA	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	1
Dengue.....	2
Diphtheria.....	5
Dysentery.....	19
Influenza.....	13
Malaria.....	44
Measles.....	15
Mumps.....	4
Paratyphoid fever.....	6
Pellagra.....	14
Pneumonia.....	5
Scarlet fever.....	4
Septic sore throat.....	4
Smallpox.....	3
Tuberculosis.....	20
Typhoid fever.....	92
Whooping cough.....	16

IDAHO	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	1
Diphtheria.....	1
Measles.....	2
Scarlet fever.....	1
Smallpox.....	4
Tuberculosis.....	1
Typhoid fever.....	2

ILLINOIS	Cases
Cerebrospinal meningitis:	
Jackson County.....	1
Lake County.....	3
Chicken pox.....	82
Diphtheria.....	41
Influenza.....	98
Lethargic encephalitis—Saline County.....	1
Measles.....	243
Mumps.....	20
Pneumonia.....	226
Poliomyelitis:	
Cook County.....	1
Lake County.....	1
Wabash County.....	1
Scarlet fever.....	72
Smallpox.....	10
Tuberculosis.....	387
Typhoid fever.....	38
Whooping cough.....	201

INDIANA	Cases
Cerebrospinal meningitis.....	2
Chicken pox.....	4
Diphtheria.....	11
Influenza.....	7
Measles.....	53
Scarlet fever.....	28
Smallpox.....	22
Tuberculosis.....	44
Typhoid fever.....	28
Whooping cough.....	125

IOWA	Cases
Chicken pox.....	4
Diphtheria.....	14
German measles.....	1
Measles.....	4
Scarlet fever.....	23
Smallpox.....	8
Tuberculosis.....	20
Typhoid fever.....	3
Whooping cough.....	9

KANSAS	Cases
Chicken pox.....	6
Diphtheria.....	8
German measles.....	3
Leprosy.....	1
Measles.....	23
Mumps.....	8
Pneumonia.....	5
Poliomyelitis:	
Topeka.....	1
Wichita.....	1
Scarlet fever.....	12
Smallpox.....	4
Trachoma.....	1
Tuberculosis.....	40
Typhoid fever.....	25
Whooping cough.....	117

LOUISIANA	Cases
Diphtheria.....	11
Influenza.....	16
Malaria.....	25
Paratyphoid fever.....	1
Pneumonia.....	15
Scarlet fever.....	4
Tuberculosis.....	35
Typhoid fever.....	33
Whooping cough.....	6

MAINE	Cases
Chicken pox.....	12
Diphtheria.....	2
Measles.....	48
Mumps.....	8
Pneumonia.....	2
Scarlet fever.....	21
Tuberculosis.....	8
Typhoid fever.....	2
Vincent's angina.....	1
Whooping cough.....	59

MARYLAND ¹	Cases
Cerebrospinal meningitis.....	1
Chicken pox.....	17
Diphtheria.....	8
Dysentery.....	9

¹ Week ended Friday.

MARYLAND—continued

	Cases
Impetigo contagiosa.....	4
Influenza.....	2
Lethargic encephalitis.....	4
Malaria.....	1
Measles.....	39
Mumps.....	16
Paratyphoid fever.....	1
Pneumonia (broncho).....	7
Pneumonia (lobar).....	6
Poliomyelitis.....	3
Scarlet fever.....	17
Septic sore throat.....	1
Tetanus.....	5
Tuberculosis.....	75
Typhoid fever.....	16
Whooping cough.....	107

MASSACHUSETTS

Cerebrospinal meningitis.....	4
Chicken pox.....	51
Conjunctivitis (suppurative).....	2
Diphtheria.....	38
German measles.....	6
Influenza.....	1
Lethargic encephalitis.....	4
Malaria.....	1
Measles.....	83
Mumps.....	24
Ophthalmia neonatorum.....	37
Pellagra.....	2
Pneumonia (lobar).....	24
Poliomyelitis.....	10
Scarlet fever.....	97
Septic sore throat.....	3
Tetanus.....	1
Tuberculosis (pulmonary).....	107
Tuberculosis (other forms).....	25
Typhoid fever.....	17
Whooping cough.....	120

MICHIGAN

Diphtheria.....	66
Measles.....	88
Pneumonia.....	24
Scarlet fever.....	108
Smallpox.....	6
Tuberculosis.....	338
Typhoid fever.....	11
Whooping cough.....	137

MINNESOTA

Cerebrospinal meningitis.....	2
Chicken pox.....	12
Diphtheria.....	31
Influenza.....	2
Lethargic encephalitis.....	1
Measles.....	80
Poliomyelitis.....	2
Scarlet fever.....	90
Smallpox.....	2
Tuberculosis.....	57
Typhoid fever.....	5
Whooping cough.....	51

MISSISSIPPI

	Cases
Diphtheria.....	6
Poliomyelitis.....	1
Scarlet fever.....	3
Smallpox.....	2
Typhoid fever.....	55

MISSOURI

Cerebrospinal meningitis.....	1
Chicken pox.....	7
Diphtheria.....	31
Influenza.....	1
Measles.....	37
Mumps.....	1
Pneumonia.....	1
Rabies.....	2
Scarlet fever.....	29
Smallpox.....	2
Trachoma.....	3
Tuberculosis.....	38
Typhoid fever.....	26
Whooping cough.....	56

MONTANA

Cerebrospinal meningitis.....	1
German measles.....	2
Measles.....	1
Mumps.....	5
Rocky Mountain spotted fever—Stevensville.....	1
Scarlet fever.....	8
Tuberculosis.....	2
Typhoid fever.....	6
Whooping cough.....	8

NEBRASKA

Chicken pox.....	1
Diphtheria.....	2
Measles.....	6
Mumps.....	2
Pneumonia.....	7
Poliomyelitis.....	1
Scarlet fever.....	6
Septic sore throat.....	3
Smallpox.....	3
Tuberculosis.....	6
Typhoid fever.....	2
Whooping cough.....	15

NEW JERSEY

Cerebrospinal meningitis.....	2
Chicken pox.....	17
Diphtheria.....	41
Influenza.....	2
Measles.....	57
Pneumonia.....	33
Poliomyelitis.....	3
Scarlet fever.....	40
Typhoid fever.....	6
Whooping cough.....	120

NEW MEXICO

Conjunctivitis.....	2
Diphtheria.....	4
Lethargic encephalitis.....	1
Mumps.....	1

NEW MEXICO—continued	
	Cases
Pellagra.....	1
Rabies (in animals).....	1
Scarlet fever.....	1
Tuberculosis.....	46
Typhoid fever.....	3
Whooping cough.....	7

NEW YORK

(Exclusive of New York City)

Chicken pox.....	71
Diphtheria.....	63
Dysentery.....	2
German measles.....	41
Lethargic encephalitis.....	2
Malaria.....	4
Measles.....	397
Mumps.....	34
Paratyphoid fever.....	5
Pneumonia.....	68
Polioomyelitis.....	17
Scarlet fever.....	39
Septic sore throat.....	1
Smallpox.....	3
Typhoid fever.....	22
Vincent's angina.....	15
Whooping cough.....	261

NORTH CAROLINA

Cerebrospinal meningitis.....	1
Chicken pox.....	18
Diphtheria.....	14
German measles.....	17
Measles.....	90
Polioomyelitis.....	4
Scarlet fever.....	18
Septic sore throat.....	2
Smallpox.....	22
Typhoid fever.....	106
Whooping cough.....	310

OREGON

Chicken pox.....	7
Diphtheria.....	26
Influenza.....	7
Malaria.....	4
Measles.....	10
Mumps.....	3
Pneumonia.....	31
Scarlet fever.....	16
Septic sore throat.....	1
Smallpox.....	14
Tuberculosis.....	14
Typhoid fever.....	17
Whooping cough.....	9

PENNSYLVANIA

Chicken pox.....	55
Diphtheria.....	100
German measles.....	4
Lethargic encephalitis—Philadelphia.....	1
Measles.....	430
Mumps.....	13
Pneumonia.....	6
Scarlet fever.....	110

2 Deaths.

PENNSYLVANIA—continued	
	Cases
Tuberculosis.....	104
Typhoid fever.....	32
Whooping cough.....	362

RHODE ISLAND

Diphtheria.....	3
German measles.....	3
Measles.....	5
Pneumonia.....	2
Tuberculosis.....	12
Whooping cough.....	29

SOUTH DAKOTA

Diphtheria.....	2
Measles.....	6
Scarlet fever.....	7
Smallpox.....	3
Trachoma.....	2
Tuberculosis.....	2
Typhoid fever.....	1
Whooping cough.....	8

TENNESSEE

Chicken pox.....	4
Diphtheria.....	3
Influenza.....	2
Malaria.....	50
Measles.....	10
Pellagra.....	44
Pneumonia.....	5
Scarlet fever.....	5
Smallpox.....	2
Tuberculosis.....	45
Typhoid fever:	
Maury County.....	9
Nashville.....	16
Scattering.....	105
Whooping cough.....	35

TEXAS

Diphtheria.....	7
Measles.....	1
Polioomyelitis.....	1
Scarlet fever.....	4
Smallpox.....	1
Tuberculosis.....	3
Typhoid fever.....	9
Whooping cough.....	3

UTAH

Cerebrospinal meningitis—Brigham.....	1
Chicken pox.....	5
Diphtheria.....	10
German measles.....	2
Measles.....	7
Mumps.....	5
Smallpox.....	8
Typhoid fever.....	1
Whooping cough.....	49

VERMONT

Chicken pox.....	5
Diphtheria.....	1
Measles.....	13
Mumps.....	9
Typhoid fever.....	1
Whooping cough.....	59

Alaba
Idaho
Maine
Monta
Orego
Virgi
Washi

VIRGINIA

	Cases
Cerebrospinal meningitis—Hanover County	1
Poliomyelitis—Hanover County	1

WASHINGTON

Cerebrospinal meningitis:	
Spokane	1
Walla Walla County	1
Chicken pox	17
Diphtheria	21
German measles	4
Measles	25
Mumps	4
Scarlet fever	21
Smallpox	18
Tuberculosis	39
Typhoid fever	7
Whooping cough	43

WEST VIRGINIA

Cerebrospinal meningitis:	
McDowell County	1
Wyoming County	1
Chicken pox	7
Diphtheria	7
Measles	77
Scarlet fever	16
Smallpox	7
Tuberculosis	36
Typhoid fever	19
Whooping cough	49

WISCONSIN

Milwaukee:	
Cerebrospinal meningitis	1
Chicken pox	19
Diphtheria	14

WISCONSIN—continued

Milwaukee—Continued.	Cases
German measles	1
Influenza	1
Measles	61
Mumps	5
Pneumonia	5
Scarlet fever	5
Tuberculosis	36
Whooping cough	97
Scattering:	
Chicken pox	34
Diphtheria	16
German measles	10
Influenza	7
Lethargic encephalitis	1
Measles	345
Mumps	54
Pneumonia	4
Poliomyelitis	2
Scarlet fever	48
Smallpox	1
Tuberculosis	26
Typhoid fever	5
Whooping cough	190

WYOMING

Chicken pox	1
German measles	2
Measles	7
Mumps	2
Rocky Mountain spotted fever—Fremont County	1
Scarlet fever	7
Whooping cough	15

Report for Week Ended July 24, 1926

NORTH DAKOTA

	Cases
Chicken pox	3
Diphtheria	5
Measles	10
Mumps	2
Pneumonia	4

NORTH DAKOTA—continued

	Cases
Scarlet fever	15
Smallpox	1
Tuberculosis	2
Typhoid fever	1
Whooping cough	52

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>June, 1926</i>										
Alabama	3	19	27	144	1,063	102	3	18	122	90
Idaho	2	23	0	0	39	0	0	20	35	9
Maine	3	16	4	0	679	2	2	52	0	15
Montana	7	43	17		297		1	59	24	4
Oregon	8	75	46	1	346		3	169	162	23
Virginia	4	58	406	145	2,270	32	2	186	93	80
Washington	17	53	19		443		2	186	103	24

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of June, 1926, to other State health departments by departments of health of certain States

Referred by—	Diphtheria	Scarlet fever	Small-pox	Tuberculosis	Typhoid fever
Connecticut.....			1		1
Illinois.....			4	11	1
Minnesota.....		1		27	2
New York.....	3	1	2		1
Washington.....					1

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

Diphtheria.—For the week ended July 17, 1926, 37 States reported 772 cases of diphtheria. For the week ended July 18, 1925, the same States reported 772 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of nearly 30,430,000, reported 547 cases of diphtheria for the week ended July 17, 1926. Last year for the corresponding week they reported 435 cases. The estimated expectancy for these cities was 613 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty-four States reported 3,565 cases of measles for the week ended July 17, 1926, and 1,414 cases of this disease for the week ended July 18, 1925. One hundred and one cities reported 1,254 cases of measles for the week this year and 880 cases last year.

Poliomyelitis.—The health officers of 37 States reported 53 cases of poliomyelitis for the week ended July 17, 1926. The same States reported 148 cases for the week ended July 18, 1925.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-seven States—this year, 1,130 cases; last year, 766 cases; 101 cities—this year, 545 cases; last year, 335 cases; estimated expectancy, 345 cases.

Smallpox.—For the week ended July 17, 1926, 37 States reported 290 cases of smallpox. Last year for the corresponding week they reported 260 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 41 cases; 1925, 82 cases; estimated expectancy, 61 cases. One death from smallpox was reported by these cities for the week this year—at Omaha, Nebr.

Typhoid fever.—Seven hundred and six cases of typhoid fever were reported for the week ended July 17, 1926, by 36 States. For the corresponding week of 1925, the same States reported 993 cases of this disease. One hundred and one cities reported 126 cases of typhoid fever for the week this year and 208 cases for the corresponding week last year. The estimated expectancy for these cities was 155 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,700,000 as follows: 1926, 367 deaths; 1925, 317 deaths.

City reports for week ended July 17, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick-en pox, cases re-reported	Diphtheria		Influenza		Meas-les, cases re-reported	Mumps, cases re-reported	Pneu-monia, deaths re-reported
			Cases, esti-mated expect-ancy	Cases re-reported	Cases re-reported	Deaths re-reported			
NEW ENGLAND									
Maine:									
Portland	75,333	0	0	0	0	0	4	0	3
New Hampshire:									
Concord	22,546	0	0	1	0	0	4	0	2
Manchester	83,097	0	1	0	0	0	0	0	1
Vermont:									
Barre	10,008	2	0	0	0	0	0	0	1
Massachusetts:									
Boston	779,620	24	39	29	0	0	32	38	12
Fall River	128,993	3	3	1	0	0	2	3	0
Springfield	142,065	1	2	0	0	0	2	0	0
Worcester	190,757	0	2	3	0	0	3	0	1
Rhode Island:									
Pawtucket	69,760	0	1	0	0	0	0	0	1
Providence	267,918	0	4	3	0	0	17	0	1
Connecticut:									
Bridgeport	(1)	1	4	3	0	0	2	0	0
Hartford	100,197	1	3	2	0	0	1	0	2
New Haven	178,927	1	1	0	0	0	9	0	1
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	4	8	12	0	0	6	2	7
New York	5,873,356	64	177	109	17	6	66	47	102
Rochester	316,786	2	5	5	0	1	2	0	2
Syracuse	182,003	13	4	1	0	0	99	2	2
New Jersey:									
Camden	128,642	2	2	3	0	0	4	0	0
Newark	452,513	11	11	6	2	0	12	5	5
Trenton	132,020	0	2	2	0	0	7	1	1
Pennsylvania:									
Philadelphia	1,979,364	44	43	55	-----	1	57	4	27
Pittsburgh	631,563	24	13	10	-----	0	2	0	0
Reading	112,707	2	2	0	-----	0	4	0	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	1	6	6	0	1	28	6	11
Cleveland	936,485	71	76	40	1	1	13	1	9
Columbus	279,836	3	2	5	0	0	12	0	1
Toledo	287,380	26	4	1	0	1	29	0	4
Indiana:									
Fort Wayne	97,846	1	2	1	0	0	7	0	3
Indianapolis	358,819	10	4	1	0	1	5	0	2
South Bend	80,091	0	0	3	0	0	8	0	2
Terre Haute	71,071	0	0	0	0	0	1	0	0
Illinois:									
Chicago	2,195,239	120	69	35	4	2	183	16	16
Peoria	81,564	0	1	0	0	0	13	1	1
Springfield	63,923	2	0	2	1	1	8	1	1
Michigan:									
Detroit	1,245,824	19	29	51	2	0	16	5	11
Flint	130,316	1	3	1	0	0	33	0	2
Grand Rapids	153,698	3	3	0	0	0	15	0	0

1 No estimate made

City reports for week ended July 17, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases re-reported	Diphtheria		Influenza		Measles, cases re-reported	Mumps, cases re-reported	Pneumonia, deaths re-reported
			Cases, estimated expectancy	Cases re-reported	Cases re-reported	Deaths re-reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha.....	50,891	0	1	1	0	0	75	0	0
Madison.....	46,385	4	0	0	0	0	7	0	0
Milwaukee.....	509,192	37	10	13	0	0	134	24	8
Racine.....	67,707	1	1	0	0	0	63	1	2
Superior.....	39,671	0	0	2	0	0	3	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	1	0	0	0	0	1	0	0
Minneapolis.....	425,435	17	10	17	0	0	2	1	3
St. Paul.....	246,001	3	10	9	0	0	29	0	5
Iowa:									
Davenport.....	52,409	0	0	1	0	0	0	0	0
Sioux City.....	76,411	0	1	2	0	0	0	0	0
Waterloo.....	36,771	0	0	0	0	0	13	0	0
Missouri:									
Kansas City.....	367,481	0	3	1	0	0	8	0	4
St. Joseph.....	78,342	0	0	0	0	0	1	0	1
St. Louis.....	821,543	3	10	23	0	0	27	2	0
North Dakota:									
Fargo.....	26,403	0	0	0	0	0	4	8	0
Grand Forks.....	14,811	0	0	0	0	0	0	0	0
South Dakota:									
Aberdeen.....	15,036	0	0	0	0	0	3	2	0
Sioux Falls.....	30,127	0	0	0	0	0	0	0	0
Nebraska:									
Lincoln.....	60,941	3	0	0	0	0	4	1	0
Omaha.....	211,768	2	4	0	0	0	10	0	4
Kansas:									
Topeka.....	55,411	1	0	0	0	0	6	0	0
Wichita.....	88,367	0	0	1	0	0	0	0	0
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,040	1	1	0	0	0	0	0	2
Maryland:									
Baltimore.....	796,296	15	11	8	1	2	12	18	9
Cumberland.....	33,741	0	0	0	0	0	0	0	1
Frederick.....	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington.....	407,906	3	4	2	0	0	31	0	5
Virginia:									
Lynchburg.....	30,395	1	0	1	0	0	10	0	0
Norfolk.....	(¹)	2	0	0	0	0	4	0	1
Richmond.....	186,403	1	1	3	0	1	18	1	1
Roanoke.....	58,208	0	0	0	0	0	2	1	0
West Virginia:									
Charleston.....	40,019	0	0	0	0	0	2	0	1
Huntington.....	63,485	0	0	1	0	0	0	0	0
Wheeling.....	56,208	2	0	1	0	0	6	0	1
North Carolina:									
Raleigh.....	30,371	0	0	1	0	0	0	0	0
Wilmington.....	37,061	0	0	0	0	0	0	0	1
Winston-Salem.....	69,031	0	0	0	0	0	14	0	1
South Carolina:									
Charleston.....	73,125	0	0	0	7	0	1	0	2
Columbia.....	41,225	1	0	0	0	0	0	0	0
Greenville.....	27,311	0	0	0	0	0	1	0	0
Georgia:									
Atlanta.....	(¹)	2	2	1	3	0	5	1	1
Brunswick.....	16,809	0	0	0	0	0	0	0	1
Savannah.....	93,134	0	0	0	3	0	1	1	0
Florida:									
Miami.....	60,754	0	0	6	0	0	0	0	1
St. Petersburg.....	26,847	0	0	0	0	0	0	0	1
Tampa.....	94,743	0	0	0	0	0	1	0	2

¹ No estimate made.

City reports for week ended July 17, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	58,309	0	1	0	0	0	0	0	2
Louisville.....	305,935	0	2	3	2	0	3	0	2
Tennessee:									
Memphis.....	174,533	2	1	0	0	1	14	1	6
Nashville.....	136,220	0	0	1	0	1	1	0	4
Alabama:									
Birmingham.....	205,670	0	1	0	0	1	14	1	7
Mobile.....	65,955	0	0	0	0	1	0	0	0
Montgomery.....	46,481	0	0	0	1	0	1	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	31,643	0	0	0	0	0	0	1	0
Little Rock.....	74,216	1	0	1	0	0	2	0	2
Louisiana:									
New Orleans.....	414,493	0	5	2	1	1	0	0	6
Shreveport.....	57,857	0	0	0	0	0	0	0	1
Oklahoma:									
Oklahoma City.....	(1)	0	0	0	0	1	0	0	2
Texas:									
Dallas.....	194,450	0	2	0	1	1	0	0	1
Galveston.....	48,375	0	0	0	0	0	0	0	1
Houston.....	164,954	0	1	2	0	0	0	0	2
San Antonio.....	198,069	0	1	1	0	0	2	0	5
MOUNTAIN									
Montana:									
Billings.....	17,971	0	0	0	0	0	0	0	0
Great Falls.....	29,883	1	0	0	0	0	11	0	0
Helena.....	12,037	0	0	0	0	0	0	0	0
Missoula.....	12,668	0	0	0	0	0	0	0	0
Idaho:									
Boise.....	23,042	0	0	0	0	0	0	0	0
Colorado:									
Denver.....	280,911	15	8	10	0	1	7	1	1
Pueblo.....	43,787	0	1	0	0	0	1	0	1
New Mexico:									
Albuquerque.....	21,000	1	1	0	0	0	0	0	1
Arizona:									
Phoenix.....	38,669	0	0	0	0	0	0	0	1
Utah:									
Salt Lake City.....	130,948	2	2	2	0	0	2	2	2
Nevada:									
Reno.....	12,665	0	0	0	0	0	0	1	0
PACIFIC									
Washington:									
Seattle.....	(1)	8	4	5	0	0	11	2	0
Spokane.....	108,897	15	1	1	0	0	36	0	0
Tacoma.....	104,455	8	2	2	0	0	3	1	1
Oregon:									
Portland.....	282,383	5	4	1	0	0	12	2	0
California:									
Los Angeles.....	(1)	15	31	43	0	1	5	5	9
Sacramento.....	72,260	0	2	2	0	0	1	1	0
San Francisco.....	557,530	9	11	6	0	0	26	5	3

1 No estimate made.

City reports for week ended July 17, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	1	0	0	0	0	0	1	0	0	0	15
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	2	12
Manchester.....	0	0	0	0	0	0	0	0	0	0	15
Vermont:											
Barre.....	0	0	0	0	0	0	0	0	0	0	7
Massachusetts:											
Boston.....	13	31	0	0	0	9	2	3	1	41	166
Fall River.....	1	0	0	0	0	3	0	1	0	2	20
Springfield.....	2	1	0	0	0	1	0	0	0	0	24
Worcester.....	2	3	0	0	0	2	1	0	0	0	32
Rhode Island:											
Pawtucket.....	0	0	0	0	0	0	0	0	0	0	11
Providence.....	3	1	0	0	0	0	0	0	0	7	55
Connecticut:											
Bridgeport.....	3	3	1	0	0	2	0	1	0	3	24
Hartford.....	2	3	0	0	0	2	1	0	0	14	41
New Haven.....	1	0	0	0	0	1	2	0	0	0	35
MIDDLE ATLANTIC											
New York:											
Buffalo.....	9	0	0	0	0	18	1	0	0	4	128
New York.....	53	95	1	1	0	199	24	10	0	77	1,170
Rochester.....	5	1	0	0	0	4	1	1	0	7	62
Syracuse.....	4	2	0	0	0	3	1	1	0	52	45
New Jersey:											
Camden.....	1	0	0	0	0	2	0	0	0	2	19
Newark.....	7	8	0	2	0	10	1	2	0	29	64
Trenton.....	0	0	0	0	0	6	1	3	0	1	42
Pennsylvania:											
Philadelphia.....	28	32	0	0	0	28	7	5	0	44	449
Pittsburgh.....	11	7	1	0	0	3	3	0	0	77	65
Reading.....	1	2	0	0	0	2	1	0	0	9	24
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	4	9	1	0	0	11	1	4	1	10	124
Cleveland.....	10	26	2	1	0	14	2	0	0	58	164
Columbus.....	2	5	1	0	0	1	1	0	0	4	63
Toledo.....	4	3	1	0	0	7	1	0	0	47	53
Indiana:											
Fort Wayne.....	0	2	1	4	0	2	0	0	0	3	42
Indianapolis.....	3	1	2	3	0	6	1	0	0	22	59
South Bend.....	1	0	0	0	0	0	1	1	0	0	18
Terre Haute.....	1	0	0	0	0	0	0	0	0	4	15
Illinois:											
Chicago.....	34	62	1	0	0	48	4	2	0	48	545
Peoria.....	1	1	0	0	0	0	0	0	0	8	20
Springfield.....	1	3	0	0	0	0	1	0	0	10	9
Michigan:											
Detroit.....	29	47	4	0	0	18	4	1	2	81	236
Flint.....	2	9	0	0	0	0	0	0	0	3	26
Grand Rapids.....	2	3	0	1	0	0	0	0	0	5	21
Wisconsin:											
Kenosha.....	1	1	2	0	0	0	0	1	0	7	5
Madison.....	0	0	1	0	0	0	0	0	0	2	10
Milwaukee.....	12	3	2	0	0	11	1	0	0	74	104
Racine.....	2	0	0	0	0	1	0	0	0	13	12
Superior.....	1	1	2	0	0	1	0	0	0	0	9
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	3	1	2	0	0	0	0	0	0	1	11
Minneapolis.....	10	30	3	0	0	4	1	1	0	3	85
St. Paul.....	7	20	2	0	0	4	2	0	0	18	58

1 Pulmonary tuberculosis only.

City reports for week ended July 17, 1926—Continued

	Scarlet fever		Smallpox				Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
Division, State, and city	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported	Tuber- culosis, deaths re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Iowa:											
Davenport	0	0	1	0			0	0		3	
Sioux City	1	4	1	6			0	2		1	
Waterloo	1	0	0	0			0	0		4	
Missouri:											
Kansas City	2	1	0	4	0	6	2	0	0	9	65
St. Joseph	1	0	1	0	0	0	0	0	0	2	23
St. Louis	7	23	0	0	0	12	5	4	0	45	199
North Dakota:											
Fargo	1	1	1	0	0	0	0	0	0		4
Grand Forks	1		0				0				
South Dakota:											
Aberdeen	0	2	0	0			0	0		3	
Sioux Falls	0		0				0				
Nebraska:											
Lincoln	0	2	0	3	0	0	1	0	0	11	17
Omaha	1	10	3	3	1	0	0	0	0	3	45
Kansas:											
Topeka	1	2	0	0	0	0	1	0	0	15	14
Wichita	0	0	1	0	0	1	1	0	0	16	15
SOUTH ATLANTIC											
Delaware:											
Wilmington	1	1	0	0	0	0	1	0	0	2	28
Maryland:											
Baltimore	7	9	0	0	0	9	6	5	0	97	186
Cumberland	1	0	0	0	0	1	0	0	0	0	8
Frederick	0	0	0	0	0	0	0	0	0	0	
District of Colum- bia:											
Washington	4	7	0	0	0	7	4	2	0	23	108
Virginia:											
Lynchburg	1	1	0	0	0	0	0	1	0	7	20
Norfolk	1	0	0	0	0	5	2	0	0	2	
Richmond	1	1	0	0	0	4	2	2	0	3	47
Roanoke	0	1	0	0	0	2	2	0	0	0	17
West Virginia:											
Charleston	0	0	1	0	0	1	1	0	1	5	28
Huntington	0	1	1	0	0	2	1	0	0	0	16
Wheeling	1	1	0	0	0	0	0	1	0	1	11
North Carolina:											
Raleigh	0	0	0	0	0	2	1	1	0	15	10
Wilmington	0	0	0	0	0	0	1	0	0	0	7
Winston-Salem	0	2	1	0	0	1	3	0	0		20
South Carolina:											
Charleston	0	0	0	0	0	1	2	2	0	4	22
Columbia	0	0	0	0	0	0	1	9	0	0	
Greenville	0	0	0	2	0	1	1	1	0	3	7
Georgia:											
Atlanta	1	0	3	0	0	9	3	6	0	14	72
Brunswick	0	0	0	0	0	0	1	0	0	0	4
Savannah	0	0	0	0	0	3	2	0	0	0	30
Florida:											
Miami		1		0	0	2		1	1	7	31
St. Petersburg	0		0		0	0	0		0		8
Tampa	0	1	0	1	0	1	0	1	1	0	26
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	0	0	0	0	2	0	0	0	0	16
Louisville	1	5	0	0	0	11	4	2	0	1	86
Tennessee:											
Memphis	0	2	1	0	0	11	4	13	2	4	75
Nashville	0	0	1	0	0	6	6	8	0	20	65
Alabama:											
Birmingham	1	2	1	1	0	4	4	9	0	17	59
Mobile	0	0	1	0	0	1	0	0	0	0	19
Montgomery	0	1	0	0	0	0	1	0	0	3	22

City reports for week ended July 17, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	0	0	0			2	0		9	
Little Rock.....	0	3	1	0	0	5	2	2	1	0	
Louisiana:											
New Orleans.....	1	3	0	0	0	13	5	4	0	9	143
Shreveport.....	0	0	0	1	0	0	2	0	0	0	23
Oklahoma:											
Oklahoma City.....	1	0	1	0	0	0	2	3	0	0	21
Texas:											
Dallas.....	1	3	0	0	0	2	3	3	2	21	52
Galveston.....	0	0	0	1	0	2	0	0	0	0	15
Houston.....	1	0	1	1	0	7	2	3	1	0	60
San Antonio.....	1	3	0	0	0	12	1	1	1	0	56
MOUNTAIN											
Montana:											
Billings.....	1	1	0	0	0	0	0	0	0	1	6
Great Falls.....	0	0	0	1	0	1	1	0	0	6	14
Helena.....	0	0	0	0	0	0	0	0	0	0	1
Missoula.....	0	0	1	0	0	0	0	0	0	0	4
Idaho:											
Boise.....	1	1	1	0	0	0	0	0	0	0	3
Colorado:											
Denver.....	5	6	2	0	0	10	1	0	0	23	59
Pueblo.....	0	0	0	0	0	0	0	0	0	0	5
New Mexico:											
Albuquerque.....	0	0	0	0	0	8	0	0	0	4	25
Arizona:											
Phoenix.....		0	0	0	0	8	0	0	0	0	20
Utah:											
Salt Lake City.....	2	2	1	0	0	1	1	0	0	32	28
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	4	9	3	0			1	1		8	
Spokane.....	1	4	3	0			1	0		12	
Tacoma.....	1	0	1	5	0	0	0	0	0	0	25
Oregon:											
Portland.....	3	9	6	6	0	4	0	0	0	3	68
California:											
Los Angeles.....	8	17	3	3	0	28	4	3	0	15	196
Sacramento.....	1	0	0	0	0	2	1	3	2	0	19
San Francisco.....	5	5	1	0	0	10	1	1	1	1	129

City reports for week ended July 17, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Vermont:									
Barre.....	0	1	0	0	0	0	0	0	0
Massachusetts:									
Boston.....	1	0	0	0	0	1	0	0	0
Fall River.....	0	0	0	0	0	0	0	1	0
Springfield.....	0	0	0	0	0	0	0	1	0
Worcester.....	0	0	0	0	1	0	1	2	0
Rhode Island:									
Providence.....	0	0	0	1	0	0	0	0	0
Connecticut:									
New Haven.....	0	1	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York.....	0	2	4	3	0	0	4	3	0
Rochester.....	0	0	1	0	0	0	0	0	0
Syracuse.....	0	0	0	0	0	0	0	1	0
Pennsylvania:									
Philadelphia.....	0	0	0	1	0	0	0	0	0
Pittsburgh.....	0	0	0	0	0	0	0	0	1
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	0	0	0	1	0	0	1	0	0
Toledo.....	0	1	0	0	0	0	0	0	0
Illinois:									
Chicago.....	1	1	2	0	0	0	1	2	0
Springfield.....	0	0	0	0	0	0	0	1	0
Michigan:									
Detroit.....	1	0	3	0	0	0	1	0	0
Grand Rapids.....	1	0	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	1	1	0	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
St. Paul.....	0	0	0	0	0	0	0	1	0
Missouri:									
St. Louis.....	3	0	0	0	0	0	1	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	2	0	0	0	1	2	0
District of Columbia:									
Washington.....	0	0	0	0	0	0	0	1	0
Virginia:									
Roanoke.....	0	0	0	0	0	1	0	0	0
West Virginia:									
Charleston.....	0	1	0	0	0	0	0	0	0
North Carolina:									
Raleigh.....	0	1	0	0	0	0	0	0	0
Winston-Salem.....	0	0	0	0	0	0	0	0	1
South Carolina:									
Charleston.....	0	0	0	0	2	1	0	1	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville.....	0	0	0	1	0	1	0	0	0
Tennessee:									
Nashville.....	0	0	0	0	0	2	0	0	0
Alabama:									
Birmingham.....	0	0	1	1	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	0	0	0	0	1	0	0	0	0
Little Rock.....	0	0	1	0	0	3	0	0	0
Louisiana:									
New Orleans.....	0	0	1	1	1	1	0	0	0

City reports for week ended July 17, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polioomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
WEST SOUTH CENTRAL—continued									
Oklahoma:									
Oklahoma City.....	0	0	0	0	1	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	2	0	0	0
PACIFIC									
California:									
Los Angeles.....	0	1	0	0	0	0	0	1	0
Sacramento.....	1	0	0	0	0	0	0	1	1
San Francisco.....	0	0	1	0	1	0	0	0	0

The following table gives the rates per 100,000 population for 103 cities for the five-week period ended July 17, 1926, compared with those for a like period ended July 18, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 103 cities reporting cases had an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, June 13 to July 17, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925¹

DIPHTHERIA CASE RATES

	Week ended—									
	June 20, 1925	June 19, 1926	June 27, 1925	June 26, 1926	July 4, 1925	July 3, 1926	July 11, 1925	July 10, 1926	July 18, 1925	July 17, 1926
103 cities.....	114	² 113	112	¹ 131	³ 92	⁴ 122	93	⁵ 99	76	⁶ 94
New England.....	95	78	122	59	113	64	60	57	60	78
Middle Atlantic.....	166	124	163	152	95	168	126	129	96	101
East North Central.....	86	131	78	161	81	117	83	⁷ 93	68	100
West North Central.....	129	⁸ 167	111	⁹ 195	127	¹⁰ 125	90	¹¹ 93	82	¹² 107
South Atlantic.....	48	68	69	45	38	88	52	¹³ 66	50	32
East South Central.....	5	16	32	30	5	¹⁴ 22	21	5	11	21
West South Central.....	70	43	44	43	57	47	35	43	26	26
Mountain.....	185	146	102	118	176	155	102	118	120	169
Pacific.....	108	102	102	132	¹⁵ 138	129	119	181	94	159

¹ The figures given in this table are rates per 100,000 population, annual basis—and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

² Grand Forks, N. Dak., not included.

³ Spokane, Wash., not included.

⁴ Grand Forks, N. Dak., Sioux Falls, S. Dak., and Covington, Ky., not included.

⁵ Detroit, Mich., Grand Forks, N. Dak., Sioux Falls, S. Dak., and Frederick, Md., not included.

⁶ Grand Forks, N. Dak., and Sioux Falls, S. Dak., not included.

⁷ Detroit, Mich., not included.

⁸ Frederick, Md., not included.

⁹ Covington, Ky., not included.

Summary of weekly reports from cities, June 13 to July 17, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

MEASLES CASE RATES

	Week ended—									
	June 26, 1925	June 19, 1926	June 27, 1925	June 26, 1926	July 4, 1925	July 3, 1926	July 11, 1925	July 10, 1926	July 18, 1925	July 17, 1926
103 cities.....	416	2 734	292	2 617	2 225	2 435	186	2 315	153	2 215
New England.....	611	494	393	425	338	319	273	246	252	180
Middle Atlantic.....	542	585	380	476	257	313	248	211	198	129
East North Central.....	547	943	377	828	300	634	210	7 536	178	365
West North Central.....	84	1,260	58	1 935	30	604	34	417	28	191
South Atlantic.....	330	825	263	701	248	436	206	294	140	203
East South Central.....	105	695	121	612	89	430	110	285	74	171
West South Central.....	18	77	4	95	4	52	0	47	0	17
Mountain.....	74	701	92	792	37	437	55	264	28	191
Pacific.....	80	582	50	485	2 35	461	39	337	61	329

SCARLET FEVER CASE RATES

103 cities.....	159	2 233	113	2 212	2 95	2 170	87	2 122	58	2 93
New England.....	137	203	103	236	108	187	141	158	77	99
Middle Atlantic.....	144	221	90	210	79	188	81	129	45	73
East North Central.....	202	340	146	253	114	187	91	125	63	118
West North Central.....	317	480	179	354	163	270	139	205	104	185
South Atlantic.....	58	131	42	152	56	66	42	64	44	45
East South Central.....	147	47	84	47	68	66	116	52	74	52
West South Central.....	35	69	53	30	44	60	9	34	22	52
Mountain.....	139	127	203	118	102	91	148	55	83	91
Pacific.....	110	216	102	159	2 67	151	50	121	58	94

SMALLPOX CASE RATES

103 cities.....	35	2 11	24	2 16	2 14	2 11	16	2 8	14	2 7
New England.....	0	0	0	0	0	0	2	0	2	0
Middle Atlantic.....	1	0	0	0	1	2	0	0	1	1
East North Central.....	42	10	19	14	13	10	11	7 9	9	6
West North Central.....	58	2 32	36	2 44	16	26	20	2 28	16	2 26
South Atlantic.....	29	30	13	26	10	11	23	9	8	6
East South Central.....	184	10	121	88	58	39	74	0	42	5
West South Central.....	18	26	0	17	4	22	4	4	13	13
Mountain.....	18	27	28	18	28	55	18	9	18	9
Pacific.....	146	24	163	32	2 85	19	97	24	113	22

TYPHOID FEVER CASE RATES

103 cities.....	21	2 11	25	2 12	2 35	2 17	33	2 14	36	2 22
New England.....	19	19	17	0	22	12	24	9	31	12
Middle Atlantic.....	14	9	18	10	15	11	17	7	25	11
East North Central.....	6	4	8	4	10	5	13	7 4	11	5
West North Central.....	12	2 10	10	2 4	20	10	42	16	42	14
South Atlantic.....	46	28	67	30	65	36	56	43	52	58
East South Central.....	74	21	84	36	184	127	163	52	205	166
West South Central.....	123	30	128	30	233	13	159	30	128	56
Mountain.....	37	0	0	0	9	27	28	0	18	0
Pacific.....	6	8	19	16	2 21	22	17	13	30	22

¹ Grand Forks, N. Dak., not included.

² Spokane Wash., not included.

³ Grand Forks, N. Dak., Sioux Falls, S. Dak., and Covington, Ky., not included.

⁴ Detroit, Mich., Grand Forks, N. Dak., Sioux Falls, S. Dak., and Frederick, Md., not included.

⁵ Grand Forks, N. Dak., and Sioux Falls, S. Dak., not included.

⁶ Detroit, Mich., not included.

⁷ Frederick, Md., not included.

⁸ Covington, Ky., not included.

Summary of weekly reports from cities, June 15 to July 17, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

INFLUENZA DEATH RATES

	Week ended—									
	June 20, 1925	June 27, 1925	June 27, 1925	June 26, 1926	July 4, 1925	July 3, 1926	July 11, 1925	July 10, 1926	July 1, 1925	July 17, 1926
96 cities.....	6	7	6	5	4	10 6	2	11 4	2	11 4
New England.....	2	9	7	0	2	5	0	7	0	0
Middle Atlantic.....	4	9	6	6	2	7	2	1	2	4
East North Central.....	7	3	6	3	5	5	2	18	3	4
West North Central.....	6	4	4	6	0	18 8	0	11 0	0	11 0
South Atlantic.....	6	4	2	6	6	8	0	10	4	6
East South Central.....	32	16	16	5	11	10	16	16	0	21
West South Central.....	10	24	10	24	10	14	10	5	10	9
Mountain.....	0	0	9	0	0	9	0	0	0	9
Pacific.....	4	4	4	0	4	4	0	4	4	4

PNEUMONIA DEATH RATES

96 cities.....	78	87	65	74	56	10 75	50	11 67	54	12 60
New England.....	60	87	58	69	46	92	43	54	48	57
Middle Atlantic.....	93	95	75	83	61	90	64	73	62	74
East North Central.....	76	74	45	61	42	61	55	1 67	44	46
West North Central.....	32	75	51	44	40	12 58	38	12 53	53	12 36
South Atlantic.....	75	111	90	94	71	88	65	1 72	48	54
East South Central.....	95	99	110	125	89	121	84	119	68	109
West South Central.....	87	71	73	76	53	57	58	57	73	85
Mountain.....	139	100	55	109	65	46	74	36	83	30
Pacific.....	58	75	47	43	73	43	65	53	40	46

¹ Detroit, Mich., not included.

² Frederick, Md., not included.

³ Covington, Ky., not included.

⁴ Sioux Falls, S. Dak., and Covington, Ky., not included.

⁵ Detroit, Mich., Sioux Falls, S. Dak., and Frederick, Md., not included

⁶ Sioux Falls, S. Dak., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	103	96	20,944,996	20,473,129	20,251,658	20,764,201
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	14	11	2,594,962	2,634,662	2,461,380	2,490,036
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	993,103	1,004,953	993,103	1,004,953
West South Central.....	8	6	1,184,057	1,212,057	1,078,198	1,103,695
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,469,144

FOREIGN AND INSULAR

THE FAR EAST

Report for week ended July 3, 1926.—The following report for the week ended July 3, 1926, was transmitted by the Far Eastern Bureau of the Health Section of the League of Nations' Secretariat, located at Singapore, to the headquarters at Geneva.

Maritime towns	Plague		Cholera		Small-pox		Maritime towns	Plague		Cholera		Small-pox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt:							French Indo-China:						
Suez.....	1	0	0	0	0	0	Saigon and Cholon.....	0	0	32	19	0	0
Iraq:							Haiphong.....	0	0	17	15	0	0
Basra.....	0	0	0	0	2	2	China:						
British India:							Amoy.....	8	0	0	0	1	0
Calcutta.....	0	0	45	5	5	5	Hongkong.....	0	0	0	0	1	1
Bombay.....	0	0	0	12	8	8	Shanghai.....	0	0	1	0		
Madras.....	0	0	0	2	0	0	Japan:						
Rangoon.....	3	0	0	0	0	0	Osaka.....	0	0	0	0	2	
Negapatam.....	0	0	7	0	0	0	Kwantung:						
Karachi.....	1	0	0	3	2	2	Port Arthur.....	0	0	0	0	1	0
Vizagapatam.....	0	0	0	5	0	0	Dairen.....	0	0	0	0	2	0
Dutch East Indies:							U. S. E. R.:						
Surabaya.....	0	0	0	0	2	1	Vladivostok.....	0	0	0	0	2	0
Siam:													
Bangkok.....	0	0	36	14	13	3							

The telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

ASIA

British India.—Chittagong, Cochin, Tuticorin.

Ceylon.—Colombo.

Federated Malay States.—Port Swettenham.

Straits Settlements.—Penang-Singapore.

Dutch East Indies.—Batavia, Samarang, Cheribon, Belawan, Deli Palembang, Sabang, Makassar, Menado, Banjarmasin, Balikpapan, Tarakan, Pontianak.

Sarawak.—Kuching.

British North Borneo.—Sandakan.

Portuguese Timor.—Dilly.

Philippine Islands.—Manila, Iloilo, Jolo, Cebu, Zamboanga.

French Indo-China.—Turane.

Formosa.—Keelung.

Japan.—Nagasaki, Yokohama, Moji, Kobe, Niigata, Tsuruga, Hakodate, Simonoseki.

Korea.—Chemulpo, Fusan.

Manchuria.—Antung, Mukden, Changchun, Harbin.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.

New Guinea.—Port Moresby.

New Zealand.—Auckland, Wellington Christchurch, Invercargill, Dunedin.

New Caledonia.—Noumea.

Fiji.—Suva.

Hawaii.—Honolulu.

AFRICA

Egypt.—Alexandria, Port Said.

Anglo-Egyptian Sudan.—Port Sudan.

Eritrea.—Massaua.

French Somaliland.—Jibuti.

British Somaliland.—Berbera.

Italian Somaliland.—Magadiscio.

Kenya.—Mombasa.

Zanzibar.—Zanzibar.

Tanganyika.—Dar-es-Salaam.

Seychelles.—Victoria.

Mauritius.—Port Louis.

Madagascar.—Tamatave, Majunga.

Portuguese East Africa.—Mozambique, Beira, Lourenco Marques.

Union of South Africa.—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

Dutch East Indies.—Padang.

ECUADOR

Typhoid fever epidemic in Quito.—Information has been received under date of June 29, 1926, to the effect that typhoid fever was at that time epidemic in Quito, Ecuador, and that all primary and secondary schools had been closed. Cases are said to have developed in all parts of the city and the water supply is believed to be the probable source of infection. Many children have suffered from the disease.

MALTA

Communicable diseases—June 1-30, 1926.—During the month of June, 1926, communicable diseases were notified in the island of Malta, as follows:

Disease	Cases	Disease	Cases
Broncho pneumonia.....	2	Measles.....	178
Chicken pox.....	13	Pneumonia.....	7
Diphtheria.....	5	Scarlet fever.....	2
Erysipelas.....	3	Trachoma.....	62
Influenza.....	1	Tuberculosis.....	12
Lethargic encephalitis.....	1	Typhoid fever.....	19
Malta (undulant) fever.....	83	Whooping cough.....	9

Population, civil, estimated, 223,088.

UNION OF SOUTH AFRICA

Typhus fever—May, 1926.—During the month of May, 1926, 66 cases of typhus fever with 5 deaths, occurring among the native or colored population, and two cases occurring among Europeans, were reported in the Union of South Africa. For distribution of occurrence according to locality, see page 1690.

VIRGIN ISLANDS

Communicable diseases—June, 1926.—During the month of June, 1926, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Gonorrhea.....	5	St. John, 1; St. Croix, 1; imported, 1.
Pellagra.....	3	
Syphilis.....	5	Secondary, 4.
Tuberculosis.....	1	Chronic, pulmonary.
St. Croix		
Chancroid.....	2	
Filariasis.....	5	Bancrofti.
Gonorrhea.....	8	
Tuberculosis.....	3	Chronic, pulmonary.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended August 6, 1926¹

CHOLERA

Place	Date	Cases	Deaths	Remarks
Philippine Islands:				
Province—				
Romblon.....	Jan. 2-23.....	16	12	

PLAGUE

China:				
Amoy.....	June 13-26.....	21		Many unreported cases believed to be present.
Japan:				
Yokohama.....				July 2-3, 1926: Cases, 3; deaths, 3.
Java:				
Batavia.....	June 5-11.....	5	5	Province.
Madagascar				May 1-15, 1926: Cases, 20; deaths, 20.
Ambositra Province.....	May 1-15.....	4	4	Septicemic.
Tananarive Province—				
Tananarive town.....	do.....	1	1	Pneumonic.
Other localities.....	do.....	15	15	Bubonic, 4; pneumonic, 5; septicemic, 6.

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received During Week Ended August 6, 1926—Continued

SMALLPOX

Place	Date	Cases	Deaths	Remarks
Bolivia:				
La Paz.....	June 1-30.....	6	2	
Canada:				
Ontario—				
Ottawa.....	July 18-24.....	1		
China:				
Amoy.....	June 13-19.....	1		
Chungking.....	do.....			Present.
Foochow.....	June 13-25.....			Do.
Hongkong.....	June 6-12.....	2	1	
Manchuria—				
Changchun.....	June 20-26.....	1		So. Manchuria R. R.
Dairen.....	May 31-June 20.....	15	8	
Kai-yuan.....	June 20-25.....	3		Do.
Shanghai.....	do.....	1	1	Cases, foreign; deaths, foreign and Chinese.
Swatow.....	do.....			Present.
Guatemala:				
Guatemala City.....	June 1-30.....		2	
India:				
Karachi.....	June 13-19.....	7	3	
Japan:				
Taiwan Island.....	June 11-20.....	15		
Java:				
East Java and Madoera.....	May 23-29.....	13	1	
Mexico:				
Guadalajara.....	July 13-19.....			
San Luis Potosi.....	July 11-17.....		4	
Union of South Africa:				
Natal.....	May 30-June 5.....			Outbreak.
Transvaal.....	June 6-12.....			Outbreaks in Pietersburg and Rustenburg Districts.
Johannesburg.....	do.....	1		

TYPHUS FEVER

Bolivia:				
La Paz.....	June 1-30.....		1	
Chile:				
Antofagasta.....	June 20-26.....	1		
Do.....	June 27-July 3.....	1		
China:				
Antung.....	June 14-27.....	7	1	
Do.....	June 28-July 4.....	4		
Egypt:				
Port Said.....	June 11-24.....	3	1	
Tunisia:				
Tunis.....	June 21-30.....	1		
Union of South Africa.....				May, 1926: Cases, 66; deaths, 5 (colored) cases, European, 2.
Cape Province.....				May, 1926: Cases, 45; deaths, 4 (colored).
Do.....	May 31-June 12.....			Outbreaks.
Natal.....				May, 1926: Cases, 13 (colored).
Do.....	June 6-12.....			Outbreaks.
Orange Free State.....				May, 1926: Cases, 8; deaths, 1.
Do.....	June 6-12.....			Outbreaks.

YELLOW FEVER

Brazil:				
Bahia.....	June 6-19.....	4	3	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to July 30, 1926¹

CHOLERA

Place	Date	Cases	Deaths	Remarks
Ceylon				Apr. 18-May 1, 1926: Cases, 30; deaths, 24.
China:				
Shanghai	Reported July 20	35	8	
French Settlements in India				Mar. 7-Apr. 10, 1926: Cases, 13; deaths, 13.
India				Apr. 25-May 29, 1926: Cases, 12,568; deaths, 7,642.
Bombay	May 30-June 5	1	1	
Calcutta	Apr. 4-May 29	478	418	
Do.	June 13-19	46	41	
Madras	May 16-June 5	2	1	
Rangoon	May 9-June 5	23	16	
Indo-China:				
Saigon	May 2-15	52	48	
Do.	May 22-June 5	22	21	
Philippine Islands:				
Manila	May 18-24	2	2	
Provinces—				
Albay	Apr. 18-24	1	1	
Mindoro	Feb. 21-27	1	1	
Romblon	Dec. 14-31	42	43	
Siam:				
Bangkok	May 2-June 5	1,209	686	

PLAGUE

Azores:				
St. Michaels—				
Arrifes	May 9-15	1		
Livramento	May 15-29	2	1	
British East Africa:				
Kisumu	May 16-22	1	1	
Uganda	Mar. 1-31	35	34	
Ceylon:				
Colombo	May 29-June 5	1	1	
China:				
Amoy	Apr. 18-May 29		30	Quite prevalent.
Do.	May 30-June 12	19		Deaths not reported.
Foochow	June 6-12			Several cases. Not epidemic.
Nanking	May 9-June 5			Prevalent.
Ecuador:				
Guayaquil	May 16-June 30	6		Rats taken, 30,914; found infected, 31.
Egypt				Jan. 1-June 10, 1926: Cases, 86.
City—				
Suez	May 21-June 3	4	3	
Province—				
Beni-Suef	May 28-June 8	8	2	
Gharbieh	June 2	1	1	
Greece:				
Athens	Apr. 1-30	7	2	Including Piræus.
Do.	May 1-31	9	2	Do.
Patras	May 27-June 12	4	1	
Zante	May 17	1		
India:				
Bombay	May 2-June 5	13	13	Apr. 25-May 29, 1926: Cases, 44,974; deaths, 34,540.
Karachi	May 23-June 19	11	10	
Madras Presidency	Apr. 25-May 29	69	89	
Rangoon	May 9-June 5	7	5	
Indo-China:				
Saigon	May 23-June 5	3	1	
Iraq:				
Bagdad	Apr. 18-May 15	107	61	
Do.	May 30-June 12	36	23	
Japan:				
Yokohama	Reported July 6		3	
Java:				
Batavia	Apr. 24-June 4	57	57	
Cheribon	Apr. 11-24	3	3	
Madagascar:				
Moramanga Province	Apr. 1-15	2	2	Apr. 1-15, 1926: Cases, 42; deaths, 39.
Tananarive Province				Septicemic.
Tananarive Town	Apr. 1-30	5	5	Apr. 1-30, 1926: Cases, 79; deaths, 67.
Other localities	do	65	62	Bubonic, pneumonic, septicemic.

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to July 30, 1926—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Nigeria				Feb. 1-Mar. 31, 1926: Cases, 81; deaths, 62.
Peru				May, 1926: Cases, 23; deaths, 10.
Departments—				Present.
Ancash	May 1-31			Do.
Cajamarca	do			
Ica	do	1		
Libertad	do	4		
Lima	do	18	10	Pacasmayo, cases, 2; Trujillo district, cases, 2.
Russia				Lima City, 1 case; country estates, 1.
Senegal				Jan. 19-Feb. 25, 1926: Cases, 7.
				Nov. 1-30, 1926: Cases, 3; deaths, 2.
Siam:				
Bangkok	May 23-29	1	1	
Straits Settlements:				
Singapore	May 2-8	1	1	
Tunisia:				
Kairouan	June 9	3		9 cases 30 miles south of Kairouan.
Union of South Africa:				
Cape Province	May 16-22	5	3	
Orange Free State—				
Hoopstad District—				
Protestpan	May 9-22	3	3	

SMALLPOX

Algeria:				
Algiers	May 21-June 20	11		
Bolivia:				
La Paz	May 1-31	8	5	
Brazil:				
Manaos	Apr. 1-30		5	
Para	May 16-June 19	20	21	
Rio de Janeiro	May 2-June 5	102	55	
Do	June 6-12		17	
Santos	Mar. 1-7		1	
British East Africa:				
Tanganyika	May 2-22		12	
Uganda	Mar. 1-31	1		
British South Africa:				
Northern Rhodesia	May 18-24	17	6	Natives.
Canada				May 30-June 12, 1926: Cases, 46.
Alberta	May 30-June 12	3		
Manitoba	May 30-June 26	24		
Winnipeg	June 6-12	5	1	
Do	July 4-17	6		
Ontario				May 30-June 26, 1926: Cases, 36.
Kingston	May 23-June 26	5		
Kitchener	Apr. 26-May 29	3	1	
North Bay	May 2-22	5		
Orillia	Apr. 26-May 29	7		
Packenham	do	10		
Toronto	do	7		
Waterloo	do	6		
Saskatchewan				May 30-June 19, 1926: Cases, 16.
Chile:				
Antofagasta	June 6-12	1		
China:				
Amoy	May 1-29		8	
Do	May 30-June 12	3		
Chungking	May 2-June 12			Present.
Foochow	May 9-29			Do.
Hongkong	May 2-June 5	14	8	
Manchuria				
An-Shan	May 16-June 12	9		South Manchuria Railway.
Antung	May 16-June 19			
Changchun	May 16-June 19	6		Do
Dairen	Apr. 26-May 9	31	6	
Fushun	do	3		Do.
Harbin	May 14-June 12	16		Do.
Kai-yuan	May 16-June 19	4		Do.
Kungchuling	June 13-19	1		Do.
Liao-yang	May 16-June 19	3		Do.
Mukden	May 16-June 12	2		Do.
Penhsihtu	May 16-June 19	4		Do.
Sipingkai	do	1		Do.
Teshihchiao	do	2		Do.
Wa-feng-tien	do	3		Do.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to July 30, 1926—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Nanking	May 8-June 5			Present.
Shanghai	May 2-29	9	24	Cases: Foreign. Deaths, population of international concession, foreign and native.
Swatow	May 9-June 5			Sporadic.
Wanshein	May 1			Present among troops.
Chosen:				
Fusan	May 1-31	1		
Seishun	do.	2	1	
Egypt:				
Alexandria	May 15-June 10	12	2	
Esthonia				May 1-31, 1926: Cases, 1.
France				Mar. 1-31, 1926: Cases, 63.
St. Etienne	June 9-13	2		
French settlements in India	Mar. 7-Apr. 10	127	127	
Great Britain:				
England—				
Bradford	May 23-29	1		
Newcastle-on-Tyne	June 6-12	1		
Nottingham	May 2-June 5	7		
Sheffield	June 13-19	1		
India				Apr. 25-May 29, 1926: Cases, 34,957; deaths, 9,035.
Bombay	May 2-29	114	63	
Calcutta	Apr. 4-May 29	171	152	
Do	June 13-19	8	7	
Karachi	May 16-June 12	36	14	
Madras	May 16-June 19	6	4	
Rangoon	May 9-June 6	7	3	
Indo-China:				
Saigon	May 9-15	1		
Iraq:				
Bagdad	May 9-June 5	4		
Basra	Apr. 18-June 5	30	21	
Italy				Mar. 28-Apr. 17, 1926: Cases, 10
Jamaica				May 30-June 25, 1926: Cases, 99. (Reported as alastrim.)
Japan:				
Kobe	May 30-June 5	1		
Nagoya	May 16-22		1	
Taiwan Island	May 11-20	24		
Do	June 1-10	8		
Yokohama	May 2-8	2		
Java:				
Batavia	May 15-21	1		Province.
East Java and Madoera	Apr. 11-May 15	26	2	
Malang	Apr. 4-10	6	1	Interior.
Surabaya	May 16-22	14	1	
Latvia				Apr. 1-30, 1926: Cases, 3.
Mexico:				
Aguascalientes	June 13-26		5	
Gundalajara	June 8-14		2	
Do	June 29-July 5		1	
Mexico City	May 16-June 5	3		Including municipalities in Federal District.
San Antonio de Arenales	Jan. 1-June 30			Present: 100 miles from Chihuahua.
San Luis Potosi	June 13-26		7	
Do	July 4-10		1	
Tampico	June 1-10		2	
Torreón	May 1-June 30		17	
Nigeria				Feb. 1-Mar. 31, 1926: Cases, 270; deaths, 12.
Poland				Mar. 28-May, 1926: Cases, 12; deaths, 1.
Portugal:				
Lisbon	Apr. 26-June 19	10	3	
Oporto	May 23-June 5	4		
Russia				Jan. 1-31, 1926: Cases, 492.
Siam:				
Bangkok	May 2-June 5	19	16	
Straits Settlements:				
Singapore	Apr. 25-May 1	1		
Tunisia				Apr. 1-May 10, 1926: Cases, 6.
Union of South Africa:				
Cape Province—				
Idutywa District	May 23-29			Outbreaks.
Transvaal—				
Johannesburg	May 9-June 5	4		
On vessels				Three cases, 1 death, at Aden, Arabia, stated to have been imported by sea.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 26 to July 30, 1926—Continued

TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers.....	May 21-June 20.....	6	1	
Chile:				
Antofagasta.....	May 23-29.....	3		
Valparaiso.....	Apr. 29-May 5.....		1	
China:				
Ichang.....			1	Reported May 1, 1926. Occur-
Wanshien.....				ring among troops.
				Present among troops, May 1,
				1926. Locality in Chungking
				consular district.
Chosen.....	Feb. 1-28.....	228	18	
Chemulpo.....	May 1-31.....	28	1	
Egypt:				
Port Said.....	June 4-10.....	1		
Ireland (Irish Free State):				
Cobh (Queenstown).....	May 30-June 5.....	1		
Cork.....	June 5.....	1		
Kerry County—				
Dingle.....	June 27-July 3.....	1		
Italy.....				Mar. 28-Apr. 17, 1926: Cases, 2.
Japan.....				Mar. 28-Apr. 10, 1926: Cases, 15.
Lithuania.....				Mar. 1-31, 1926: Cases, 38; deaths,
				8.
Mexico:				
Mexico City.....	May 16-June 5.....	20		Including municipalities in Fed-
				eral District.
Do.....	June 13-19.....	9		Do.
San Luis Potosi.....	June 13-26.....			Present, city and country.
Morocco.....				Mar. 1-31, 1926: Cases, 140.
Palestine.....				March, 1926: Cases, 6. Exclu-
Jaffa District.....	June 15-28.....	5		sive of Bedouin tribes and the
				British military forces.
Peru:				
Arequipa.....	Jan. 1-31.....		2	
Poland.....				Mar. 28-May 15, 1926: Cases, 781;
				deaths, 60.
Rumania.....				Mar. 1-31, 1926: Cases, 41.
Russia.....				Jan. 1-31, 1926: Cases, 2,056.
Tunisia.....				Apr. 1-May 10, 1926: Cases, 64.
Union of South Africa.....				April, 1926: Cases, 85; deaths, 14
				(colored); European, 2 cases:
				Total, 87 cases, 14 deaths.
Cape Province.....				Apr. 1-30, 1926: Cases, 71; deaths,
				11. Native.
Do.....	May 9-15.....			Outbreaks.
Grahamstown.....	do.....	1		Sporadic.
Natal.....				Apr. 1-30, 1926: Cases, 4. Na-
				tive.
Orange Free State.....				Apr. 1-30, 1926: Cases, 7. Na-
				tive.
Transvaal.....				Apr. 1-30, 1926: Cases, 3; deaths,
				3. Native.
Yugoslavia:				
Zagreb.....	May 15-21.....	1		

YELLOW FEVER

Brazil.....	Reported June 26.....			Present in interior of Bahia, Pira-
Bahia.....	May 9-29.....	4	3	pore, and Minas.